



#5

SEQUENCE LISTING

<110> Gerlach, Valerie L
MacDougall, John R
Smithson, Glennnda

<120> Novel Polypeptides and Nucleic Acids Encoding Same

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<140> 09/898,586

<141> 2001-07-03

<150> 60/177,839

<151> 2000-01-25

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<151> 2001-01-16

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<170> PatentIn Ver. 2.1

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<212> DNA

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ccttggtaga cctctgcctt ccctcagcca cagtcccaa gatgctactg aacatccaaa 300
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      20              25              30

Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala
      35              40              45

Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala
      50              55              60

Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys
      65              70              75              80

Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro Gly
      85              90              95

Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn
      100              105              110
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Val	Ala	Ala	Pro	Trp	Val	Ile	Ala	Ile	Leu	Asn	Pro	Leu	Leu	His	Thr	145	150	155	160
Leu	Met	Met	Ala	His	Leu	His	Phe	Cys	Ser	Asp	Asn	Val	Ile	His	His	165	170	175	
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Ser	Leu	Asn	Gln	Leu	Ser	Val	Leu	Ala	Thr	Val	Gly	Leu	Ile	Phe	Val	195	200	205	
Val	Pro	Ser	Val	Cys	Ile	Leu	Val	Ser	Tyr	Ile	Leu	Ile	Val	Ser	Ala	210	215	220	
Val	Met	Lys	Val	Pro	Ser	Ala	Gln	Gly	Lys	Leu	Lys	Ala	Phe	Ser	Thr	225	230	235	240
Cys	Gly	Ser	His	Leu	Ala	Leu	Val	Ile	Leu	Phe	Tyr	Gly	Ala	Ile	Thr	245	250	255	
Gly	Val	Tyr	Met	Ser	Pro	Leu	Ser	Asn	His	Ser	Thr	Glu	Lys	Asp	Ser	260	265	270	
Ala	Ala	Ser	Val	Ile	Phe	Met	Val	Val	Ala	Pro	Val	Leu	Asn	Pro	Phe	275	280	285	
Ile	Tyr	Ser	Leu	Arg	Asn	Asn	Glu	Leu	Lys	Gly	Thr	Leu	Lys	Lys	Thr	290	295	300	
Leu	Ser	Arg	Pro	Gly	Ala	Val	Ala	His	Ala	Cys	Asn	Pro	Ser	Thr	Leu	305	310	315	320
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 <211> 310
 <212> PRT
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 Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
 35 40 45
 Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
 50 55 60
 Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
 65 70 75 80
 Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg
 85 90 95

Met	Met	Gln	Thr	Phe	Leu	Phe	Ser	Thr	Phe	Ala	Val	Thr	Glu	Cys	Leu			
			100					105					110					
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			165					170						175				
Phe	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	His			
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Ile	Asn	Glu	Asn	Met	Val	Leu	Ala	Gly	Ala	Ile	Ser	Gly	Leu	Val	Gly			
	195						200					205						
Pro	Leu	Ser	Thr	Ile	Val	Val	Ser	Tyr	Met	Cys	Ile	Leu	Cys	Ala	Ile			
	210				215					220								
Leu	Gln	Ile	Gln	Ser	Arg	Glu	Val	Gln	Arg	Lys	Ala	Phe	Arg	Thr	Cys			
225				230						235					240			
Phe	Ser	His	Leu	Cys	Val	Ile	Gly	Leu	Val	Tyr	Gly	Thr	Ala	Ile	Ile			
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Met	Tyr	Val	Gly	Pro	Arg	Tyr	Gly	Asn	Pro	Lys	Glu	Gln	Lys	Lys	Tyr			
		260						265					270					
Leu	Leu	Leu	Phe	His	Ser	Leu	Phe	Asn	Pro	Met	Leu	Asn	Pro	Leu	Ile			
		275					280					285						
Cys	Ser	Leu	Arg	Asn	Ser	Glu	Val	Lys	Asn	Thr	Leu	Lys	Arg	Val	Leu			
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<211> 1090

<212> DNA

<213> Homo sapiens

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Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
      20              25              30

Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
      35              40              45

Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
      50              55              60

Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr Thr Phe Val Ile Ile Pro
      65              70              75              80

Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Phe Met
      85              90              95

Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu Gly Phe Ala Cys Thr Asn
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100	105	110
Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys		
115	120	125
His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu		
130	135	140
Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala		
145	150	155 160
Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn		
165	170	175
His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp		
180	185	190
Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile		
195	200	205
Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn		
210	215	220
Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr		
225	230	235 240
Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Gly Cys Ala Ser		
245	250	255
Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln		
260	265	270
Leu Val Ala Val Thr Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu		
275	280	285
Val Tyr Ser Leu Arg Asn Lys Glu Val Lys Thr Ala Leu Lys Arg Val		
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<210> 7

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<212> DNA

<213> Homo sapiens

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<210> 8

<211> 314

<212> PRT

<213> Homo sapiens

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Met Arg Gly Phe Asn Lys Thr Thr Val Val Thr Gln Phe Ile Leu Val
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Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
      20              25              30

Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
      35              40              45

Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
      50              55              60

Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr Thr Phe Val Ile Ile Pro
      65              70              75              80

Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Leu Met
      85              90              95

Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu Gly Phe Ala Cys Thr Asn
      100             105             110

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Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys
 115 120 125
 His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu
 130 135 140
 Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala
 145 150 155 160
 Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn
 165 170 175
 His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp
 180 185 190
 Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile
 195 200 205
 Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn
 210 215 220
 Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr
 225 230 235 240
 Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Asp Cys Ala Ser
 245 250 255
 Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln
 260 265 270
 Leu Val Ala Val Thr Tyr Ala Val Val Thr Pro Leu Leu Asn Pro Leu
 275 280 285
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 Leu Gly Met Pro Val Ala Thr Lys Met Ser
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<212> DNA

<213> Homo sapiens

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<210> 10

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<212> PRT

<213> Homo sapiens

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Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
      20             25             30

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Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
    35             40             45

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Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
    50             55             60

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```

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
    65             70             75             80

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Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Pro
      85             90             95

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Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile
    100            105            110

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Lys Asn Val Glu Ile Thr Asn Phe Val Cys Glu Pro Ser Gln Leu Leu
    115            120            125

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Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe
    130            135            140

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Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser

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145		150		155		160
Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser Asp Gly						
	165		170		175	
Lys Tyr Lys Gly Phe Ser Thr Cys Gly Ser Tyr Leu Ala Val Val Cys						
	180		185		190	
Ser Phe Asp Gly Thr Gly Ile Gly Met Tyr Leu Thr Ser Ala Val Ser						
	195		200		205	
Pro Pro Pro Arg Asn Gly Val Val Ala Ser Val Met Tyr Ala Val Val						
	210		215		220	
Thr Pro Met Leu Asn Leu Phe Ile Tyr Ser Leu Gly Lys Arg Asp Ile						
	225		230		235	240
Gln Ser Val Leu Arg Arg Leu Cys Ser Arg Thr Val Glu Ser His Asp						
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Met Phe His Pro Phe Ser Cys Val Gly						
	260		265			

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<210> 12
 <211> 294
 <212> PRT
 <213> Homo sapiens

<400> 12

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			20					25					30		
Leu	Cys	Ser	Ala	Asp	Ile	Gly	Phe	Thr	Leu	Ala	Met	Val	Pro	Lys	Met
			35				40						45		
Ile	Val	Asn	Met	Gln	Ser	His	Ser	Arg	Val	Ile	Ser	Tyr	Glu	Gly	Cys
	50					55					60				
Leu	Thr	Arg	Met	Ser	Phe	Phe	Val	Leu	Phe	Ala	Cys	Met	Glu	Asp	Met
65					70					75					80
Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp	Cys	Phe	Val	Ala	Ile	Cys	Arg	Pro
				85					90					95	
Leu	His	Tyr	Pro	Val	Ile	Val	Asn	Pro	His	Leu	Cys	Val	Phe	Phe	Val
			100					105					110		
Leu	Val	Ser	Phe	Phe	Leu	Ser	Pro	Leu	Asp	Ser	Gln	Leu	His	Ser	Trp
		115					120					125			
Ile	Val	Leu	Leu	Phe	Thr	Ile	Ile	Lys	Asn	Val	Glu	Ile	Thr	Asn	Phe
	130					135					140				
Val	Cys	Glu	Pro	Ser	Gln	Leu	Leu	Asn	Leu	Ala	Cys	Ser	Asp	Ser	Val
145					150					155					160
Ile	Asn	Asn	Ile	Phe	Ile	Tyr	Phe	Asp	Ser	Thr	Met	Phe	Gly	Phe	Leu
			165					170					175		
Pro	Ile	Ser	Gly	Ile	Leu	Leu	Ser	Tyr	Tyr	Lys	Ile	Val	Pro	Ser	Ile
			180					185					190		
Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly	Lys	Tyr	Lys	Gly	Phe	Ser	Thr	Cys
		195					200					205			
Gly	Ser	Tyr	Leu	Ala	Val	Val	Cys	Ser	Phe	Asp	Gly	Thr	Gly	Ile	Gly
	210					215					220				

Met Tyr Leu Thr Ser Ala Val Ser Pro Pro Pro Arg Asn Gly Val Ala
 225 230 235 240

Ser Val Met Tyr Ala Val Val Thr Pro Met Leu Asn Leu Phe Ile Leu
 245 250 255

Ser Leu Gly Lys Arg Asp Ile Gln Ser Val Leu Arg Arg Leu Cys Ser
 260 265 270

Arg Thr Val Glu Ser His Asp Met Phe His Pro Phe Ser Cys Val Gly
 275 280 285

Glu Lys Gly Gln Pro His
 290

<210> 13
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 13
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 tccagaactg cagccgggtcc tcgctttgct gtccctgtcc ctgtccatgt atctgggtcac 120
 agtgctgagg aacctgctca gcatcccggc tgtcagctct gactcccacc tccacacccc 180
 cagctacttc ttcctctcca tcctgtgctg ggctgacatc ggtttcacct cggccacggg 240
 tccaagatg attgtggaca tgcagtggta tagcagagtc atctctcatg cgggctgcct 300
 gacacagatg tctttcttgg tcctttttgc atgtatagaa ggcattgctcc tgactgtaat 360
 ggcttatgac tgctttgtag gcatctatcg cctctgcac taccagtc tctgtaatcc 420
 tcattctctg gtcttctttg ttttgggtgc ctttttcttc agcctgttgg attcccagct 480
 gcacagttgg attgtgttac aattcaccat catcaagaat gtggaaatct ctaattttgt 540
 ctgtgacccc tctcaacttc tcaaacttgc ctcttatgac agcgtcatca atagcatatt 600
 catatatctc gatagtacaa tgtttgggtt tcttcctatt tcagggatcc tttcatctta 660
 ctataaaatt gtccctcca ttctaaggat gtcattgtca gatgggaagt ataaaacttt 720
 ctccacctat ggctctcacc tagcatttgt ttgctcattt tatggaacag gcattgacat 780
 gtacctggct tcagctatgt caccaacccc caggaatggg gtggtggtgt cagtgatgta 840
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 aagtgccttg cggagggtgc gcagcagaac 930

<210> 14
 <211> 309
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT
 <222> (280)

<223> Wherein Xaa is any amino acid.

<400> 14

Thr	Glu	Pro	Arg	Asn	Leu	Thr	Gly	Val	Ser	Glu	Phe	Leu	Leu	Leu	Gly
1				5					10					15	
Leu	Ser	Glu	Asp	Pro	Glu	Leu	Gln	Pro	Val	Leu	Ala	Leu	Leu	Ser	Leu
			20					25					30		
Ser	Leu	Ser	Met	Tyr	Leu	Val	Thr	Val	Leu	Arg	Asn	Leu	Leu	Ser	Ile
		35					40					45			
Pro	Ala	Val	Ser	Ser	Asp	Ser	His	Leu	His	Thr	Pro	Thr	Tyr	Phe	Phe
	50					55					60				
Leu	Ser	Ile	Leu	Cys	Trp	Ala	Asp	Ile	Gly	Phe	Thr	Ser	Ala	Thr	Val
65				70					75						80
Pro	Lys	Met	Ile	Val	Asp	Met	Gln	Trp	Tyr	Ser	Arg	Val	Ile	Ser	His
			85					90						95	
Ala	Gly	Cys	Leu	Thr	Gln	Met	Ser	Phe	Leu	Val	Leu	Phe	Ala	Cys	Ile
		100						105					110		
Glu	Gly	Met	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp	Cys	Phe	Val	Gly	Ile
	115						120					125			
Tyr	Arg	Pro	Leu	His	Tyr	Pro	Val	Ile	Val	Asn	Pro	His	Leu	Cys	Val
	130					135					140				
Phe	Phe	Val	Leu	Val	Ser	Phe	Phe	Leu	Ser	Leu	Leu	Asp	Ser	Gln	Leu
145				150					155						160
His	Ser	Trp	Ile	Val	Leu	Gln	Phe	Thr	Ile	Ile	Lys	Asn	Val	Glu	Ile
			165						170					175	
Ser	Asn	Phe	Val	Cys	Asp	Pro	Ser	Gln	Leu	Leu	Lys	Leu	Ala	Ser	Tyr
		180						185					190		
Asp	Ser	Val	Ile	Asn	Ser	Ile	Phe	Ile	Tyr	Phe	Asp	Ser	Thr	Met	Phe
	195					200						205			
Gly	Phe	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Ser	Ser	Tyr	Tyr	Lys	Ile	Val
	210					215					220				
Pro	Ser	Ile	Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly	Lys	Tyr	Lys	Thr	Phe
225				230						235					240

Ser Thr Tyr Gly Ser His Leu Ala Phe Val Cys Ser Phe Tyr Gly Thr
245 250 255

Gly Ile Asp Met Tyr Leu Ala Ser Ala Met Ser Pro Thr Pro Arg Asn
260 265 270

Gly Val Val Val Ser Val Met Xaa Ala Val Val Thr Pro Met Leu Asn
275 280 285

Leu Phe Ile Tyr Ser Leu Arg Asn Arg Asp Ile Gln Ser Ala Leu Arg
290 295 300

Arg Leu Arg Ser Arg
305

<210> 15
<211> 994
<212> DNA
<213> Homo sapiens

<400> 15
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ctgtcatggt tgtcataggc cttctgggca acaccgttct tctcttcttg atccgtgtgg 180
actcccggct ccatacacc atgtacttcc tgctcagcca gctctccctg tttgacattg 240
gctgtcccat ggtcaccatc cccaagatgg catcagactt tctgcgggga gaaggtgcca 300
cctcctatgg aggtgggtgca gctcaaatat tcttcctcac actgatgggt gtggctgagg 360
gcgtcctgtt ggtcctcatg tcttatgacc gttatgttgc tgtgtgccag cccctgcagt 420
atcctgtact tatgagacgc caggatgtc tgctgatgat gggctcctcc tgggtggtag 480
gtgtgctcaa cgctccatc cagacctcca tcacctgca tttccctac tgtgcctccc 540
gtattgtgga tcaactcttc tgtgaggtgc cagccctact gaagctctcc tgtgcagata 600
cctgtgccta cgagatggcg ctgtccacct caggggtgct gatcctaag ctccctcttt 660
ccctcatcgc cacctcctac ggccacgtgt tgcaggctgt tctaagcatg cgctcagagg 720
aggccagaca caaggctgtc accacctgct cctcgcacat cacggtagtg gggctctttt 780
atgggtgccgc cgtgttcatg tacatgggtgc cttgcgccta ccacagtcca cagcaggata 840
acgtgggttt cctcttctat agccttgtca cccctacact caacccctt atctacagtc 900
tgaggaatcc ggaggtgtgg atggctttgg tcaaagtgt tagcagagct ggactcaggc 960
aatgtgctg actacataga aactgctggg gaga 994

<210> 16
<211> 314
<212> PRT
<213> Homo sapiens

<400> 16
Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly

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Leu Phe Ser His Ser Gly Ser Arg Gln Leu Leu Phe Ser Leu Val Ala			
20	25	30	
Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu			
35	40	45	
Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser			
50	55	60	
Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys			
65	70	75	80
Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly			
85	90	95	
Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly			
100	105	110	
Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln			
115	120	125	
Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met			
130	135	140	
Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr			
145	150	155	160
Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His			
165	170	175	
Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr			
180	185	190	
Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met			
195	200	205	
Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala			
210	215	220	
Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr			
225	230	235	240
Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val			
245	250	255	
Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn			

260	265	270
Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu		
275	280	285
Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val		
290	295	300
Leu Ser Arg Ala Gly Leu Arg Gln Met Cys		
305	310	

<210> 17
 <211> 996
 <212> DNA
 <213> Homo sapiens

<400> 17

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tgcagctaaa gtgcattgtg taaaactatg ggggatgtga atcagtcggt ggcctcagac 60
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gctgtcatgt ttgtcatagg ccttctgggc aacaccgttc ttctcttctt gatccgtgtg 180
gactcccggc tccacacacc catgtacttc ctgctcagcc agctctccct gtttgacatt 240
ggctgtccca tggtcaccat cccaagatg gcatcagact ttctgcgggg agaaggtgcc 300
acctcctatg gaggtggtgc agctcaaata ttcttcctca cactgatggg tgtggctgag 360
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tatcctgtac ttatgagacg ccaggtatgt ctgctgatga tgggctcctc ctgggtggta 480
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cgtattgtgg atcacttctt ctgtgaggtg ccagccctac tgaagctctc ctgtgcagat 600
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tccctcatcg ccacctccta cggccacgtg ttgcaggctg ttctaagcat gcgctcagag 720
gaggccagac acaaggctgt caccacctgc tcttcgcaca tcacggtagt ggggctcttt 780
tatggtgccg ccgtgttcat gtacatgggtg ccttgccct accacagtcc acagcaggat 840
aacgtggttt cctcttcta tagcctgtc accctacac tcaacccct tatctacagt 900
ctgaggaatc cggaggtgtg gatggctttg gtcaaagtgc ttagcagagc tggactcagg 960
caaatgtgca tgactacata gaaactgctg gtgaga 996
  
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<210> 18
 <211> 317
 <212> PRT
 <213> Homo sapiens

<400> 18

Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly
1 5 10 15
Leu Phe Ser His Ser Gly Ser Arg Gln Leu Leu Phe Ser Leu Val Ala
20 25 30

Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu	35	40	45
Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser	50	55	60
Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys	65	70	75
Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly	85	90	95
Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly	100	105	110
Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln	115	120	125
Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met	130	135	140
Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr	145	150	155
Ser Ile Thr Leu His Phe Pro Tyr Cys Ala Ser Arg Ile Val Asp His	165	170	175
Phe Phe Cys Glu Val Pro Ala Leu Leu Lys Leu Ser Cys Ala Asp Thr	180	185	190
Cys Ala Tyr Glu Met Ala Leu Ser Thr Ser Gly Val Leu Ile Leu Met	195	200	205
Leu Pro Leu Ser Leu Ile Ala Thr Ser Tyr Gly His Val Leu Gln Ala	210	215	220
Val Leu Ser Met Arg Ser Glu Glu Ala Arg His Lys Ala Val Thr Thr	225	230	235
Cys Ser Ser His Ile Thr Val Val Gly Leu Phe Tyr Gly Ala Ala Val	245	250	255
Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn	260	265	270
Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu	275	280	285

Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val
 290 295 300

Leu Ser Arg Ala Gly Leu Arg Gln Met Cys Met Thr Thr
 305 310 315

<210> 19
 <211> 1077
 <212> DNA
 <213> Homo sapiens

<400> 19
 cagggttcatt gacaagggtca taccaaccag atgaatccag caaatcattc ccagggtggca 60
 ggatttggtc tactgggggt ctctcagggt tgggagcttc ggtttgtttt cttcactggt 120
 ttctctgctg tgtatatttat gactgtagtg ggaaaccttc ttattgtggt catagtgacc 180
 tccgaccac acctgcacac aaccatgtat tttctcttgg gcaatcttcc tttcctggac 240
 ttttgctact cttccatcac agcacctagg atgctgggtg acttgctctc aggcaaccct 300
 accatttcct ttggtggatg cctgactcaa ctcttcttct tccacttcat tggaggcatc 360
 aagatcttcc tgctgactgt catggcgatg gaccgctaca ttgccatttc ccagcccctg 420
 cactacacgc tcattatgaa tcagactgtc tgtgcactcc ttatggcagc ctcttgggtg 480
 gggggcttca tccactccat agtacagatt gcattgacta tccagctgcc attctgtggg 540
 cctgacaagc tggacaactt ttattgtgat gtgcctcagc tgatcaaatt ggccctgcaca 600
 gatacctttg tcttagagct tttaatggtg tctaacaatg gcctggtgac cctgatgtgt 660
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 gagggccgca gcaaggccct gtctacctgt gcctctcaca ttgctgtggt gaccttaatc 780
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 gtctctgtgc tatacacaat tgtcaccccc atgctgaatc ctgccatcta taccctgaga 900
 aacaaggaag tgatcatggc catgaagaag ctgtggagga ggaaaaagga ccctattggt 960
 cccttgagc acagaccctt acattagcag aggcagtgc ctgagaatct gaaagatgct 1020
 acagggtatt agcagaggca gtgacctgag aatctgaaag atgctacagg gtattag 1077

<210> 20
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 20
 Met Asn Pro Ala Asn His Ser Gln Val Ala Gly Phe Val Leu Leu Gly
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 Leu Ser Gln Val Trp Glu Leu Arg Phe Val Phe Phe Thr Val Phe Ser
 20 25 30
 Ala Val Tyr Phe Met Thr Val Val Gly Asn Leu Leu Ile Val Val Ile
 35 40 45

Val	Thr	Ser	Asp	Pro	His	Leu	His	Thr	Thr	Met	Tyr	Phe	Leu	Leu	Gly	50	55	60	
Asn	Leu	Ser	Phe	Leu	Asp	Phe	Cys	Tyr	Ser	Ser	Ile	Thr	Ala	Pro	Arg	65	70	75	80
Met	Leu	Val	Asp	Leu	Leu	Ser	Gly	Asn	Pro	Thr	Ile	Ser	Phe	Gly	Gly	85	90	95	
Cys	Leu	Thr	Gln	Leu	Phe	Phe	Phe	His	Phe	Ile	Gly	Gly	Ile	Lys	Ile	100	105	110	
Phe	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp	Arg	Tyr	Ile	Ala	Ile	Ser	Gln	115	120	125	
Pro	Leu	His	Tyr	Thr	Leu	Ile	Met	Asn	Gln	Thr	Val	Cys	Ala	Leu	Leu	130	135	140	
Met	Ala	Ala	Ser	Trp	Val	Gly	Gly	Phe	Ile	His	Ser	Ile	Val	Gln	Ile	145	150	155	160
Ala	Leu	Thr	Ile	Gln	Leu	Pro	Phe	Cys	Gly	Pro	Asp	Lys	Leu	Asp	Asn	165	170	175	
Phe	Tyr	Cys	Asp	Val	Pro	Gln	Leu	Ile	Lys	Leu	Ala	Cys	Thr	Asp	Thr	180	185	190	
Phe	Val	Leu	Glu	Leu	Leu	Met	Val	Ser	Asn	Asn	Gly	Leu	Val	Thr	Leu	195	200	205	
Met	Cys	Phe	Leu	Val	Leu	Leu	Gly	Ser	Tyr	Thr	Ala	Leu	Leu	Val	Met	210	215	220	
Leu	Arg	Ser	His	Ser	Arg	Glu	Gly	Arg	Ser	Lys	Ala	Leu	Ser	Thr	Cys	225	230	235	240
Ala	Ser	His	Ile	Ala	Val	Val	Thr	Leu	Ile	Phe	Val	Pro	Cys	Ile	Tyr	245	250	255	
Val	Tyr	Thr	Arg	Pro	Phe	Arg	Thr	Phe	Pro	Met	Asp	Lys	Ala	Val	Ser	260	265	270	
Val	Leu	Tyr	Thr	Ile	Val	Thr	Pro	Met	Leu	Asn	Pro	Ala	Ile	Tyr	Thr	275	280	285	
Leu	Arg	Asn	Lys	Glu	Val	Ile	Met	Ala	Met	Lys	Lys	Leu	Trp	Arg	Arg	290	295	300	

Lys Lys Asp Pro Ile Gly Pro Leu Glu His Arg Pro Leu His
 305 310 315

<210> 21
 <211> 1012
 <212> DNA
 <213> Homo sapiens

<400> 21
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 agatgetcct ctttgggctc ttctccctgt tctacgtctt caccctgctg gggaacggga 180
 ccatactggg gctcatctca ctggactcca gactgcacgc ccccatgtac ttcttccctc 240
 cacacctggc ggtcgtcgac atcgccctacg cctgcaacac ggtgccccgg atgctgggtga 300
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 ttccacttt tgctgtcaca gaatgtctcc tctgggtggg gatgtcctat gatctgtacg 420
 tggccatctg ccaccccctc cgatatttgg ccatcatgac ctggagagtc tgcacacccc 480
 tcgcggtgac ttcttggaac actggagtcc ttttatcctt gattcatctt gtgttacttc 540
 tacctttacc cttctgtagg cccagaaaaa tttatcactt tttttgtgaa atcttggctg 600
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 tttctgggct ggtgggaacc ttgtccacaa ttgtagtctt atatatgtgc atcctctgtg 720
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 acctctgtgt gattggactc ttttatggca cagccattat catgtatgtt ggacccagat 840
 atgggaaccc caaggagcag aagaaatata tctgctgtt tcacagctc tttaatccca 900
 tgctcaatcc ccttatctgt agtcttagga actcagaagt gaagaatact ttgaagagag 960
 tgctgggagt agaaagggct ttatgaaaag gattatggca ttgtgactga ca 1012

<210> 22
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 22
 Met Gly Asp Asn Ile Thr Ser Ile Thr Glu Phe Leu Leu Leu Gly Phe
 1 5 10 15
 Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
 20 25 30
 Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
 35 40 45
 Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
 50 55 60

Leu	Ala	Val	Val	Asp	Ile	Ala	Tyr	Ala	Cys	Asn	Thr	Val	Pro	Arg	Met	65	70	75	80
Leu	Val	Asn	Leu	Leu	His	Pro	Ala	Lys	Pro	Ile	Ser	Phe	Ala	Gly	Arg	85	90	95	
Met	Met	Gln	Thr	Phe	Leu	Phe	Ser	Thr	Phe	Ala	Val	Thr	Glu	Cys	Leu	100	105	110	
Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Leu	Tyr	Val	Ala	Ile	Cys	His	Pro	115	120	125	
Leu	Arg	Tyr	Leu	Ala	Ile	Met	Thr	Trp	Arg	Val	Cys	Ile	Thr	Leu	Ala	130	135	140	
Val	Thr	Ser	Trp	Thr	Thr	Gly	Val	Leu	Leu	Ser	Leu	Ile	His	Leu	Val	145	150	155	160
Leu	Leu	Leu	Pro	Leu	Pro	Phe	Cys	Arg	Pro	Gln	Lys	Ile	Tyr	His	Phe	165	170	175	
Phe	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	His	180	185	190	
Ile	Asn	Glu	Asn	Met	Val	Leu	Ala	Gly	Ala	Ile	Ser	Gly	Leu	Val	Gly	195	200	205	
Pro	Leu	Ser	Thr	Ile	Val	Val	Ser	Tyr	Met	Cys	Ile	Leu	Cys	Ala	Ile	210	215	220	
Leu	Gln	Ile	Gln	Ser	Arg	Glu	Val	Gln	Arg	Lys	Ala	Phe	Cys	Thr	Cys	225	230	235	240
Phe	Ser	His	Leu	Cys	Val	Ile	Gly	Leu	Phe	Tyr	Gly	Thr	Ala	Ile	Ile	245	250	255	
Met	Tyr	Val	Gly	Pro	Arg	Tyr	Gly	Asn	Pro	Lys	Glu	Gln	Lys	Lys	Tyr	260	265	270	
Leu	Leu	Leu	Phe	His	Ser	Leu	Phe	Asn	Pro	Met	Leu	Asn	Pro	Leu	Ile	275	280	285	
Cys	Ser	Leu	Arg	Asn	Ser	Glu	Val	Lys	Asn	Thr	Leu	Lys	Arg	Val	Leu	290	295	300	
Gly	Val	Glu	Arg	Ala	Leu											305	310		

<210> 23
 <211> 1014
 <212> DNA
 <213> Homo sapiens

<400> 23
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 cagatgctcc tctttgggct cttctccctg ttctacgtct tcaccctgct ggggaacggg 180
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 gttctcaaac ttgctgtgc agataccac atcaatgaga acatggtctt ggccggagca 660
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 atgctcaatc cccttatctg tagtcttagg aactcagaag tgaagaatac tttgaagaga 960
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 <212> PRT
 <213> Homo sapiens

<400> 24
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 Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
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 Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
 35 40 45
 Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
 50 55 60
 Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
 65 70 75 80
 Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg

85							90					95						
Met	Met	Gln	Thr	Phe	Leu	Phe	Ser	Thr	Phe	Ala	Val	Thr	Glu	Cys	Leu			
			100					105					110					
Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Leu	Tyr	Val	Ala	Ile	Cys	His	Pro			
		115					120					125						
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	130					135					140							
Val	Thr	Ser	Trp	Thr	Thr	Gly	Val	Leu	Leu	Ser	Leu	Ile	His	Leu	Val			
145					150					155					160			
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			165					170					175					
Phe	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	His			
		180						185					190					
Ile	Asn	Glu	Asn	Met	Val	Leu	Ala	Gly	Ala	Ile	Ser	Gly	Leu	Val	Gly			
	195						200					205						
Pro	Leu	Ser	Thr	Ile	Val	Val	Ser	Tyr	Met	Cys	Ile	Leu	Cys	Ala	Ile			
	210					215					220							
Leu	Gln	Ile	Gln	Ser	Arg	Glu	Val	Gln	Arg	Lys	Ala	Phe	Cys	Thr	Cys			
225				230						235					240			
Phe	Ser	His	Leu	Cys	Val	Ile	Gly	Leu	Phe	Tyr	Gly	Thr	Ala	Ile	Ile			
			245					250					255					
Met	Tyr	Val	Gly	Pro	Arg	Tyr	Gly	Asn	Pro	Lys	Glu	Gln	Lys	Lys	Tyr			
		260					265					270						
Leu	Leu	Leu	Phe	His	Ser	Leu	Phe	Asn	Pro	Met	Leu	Asn	Pro	Leu	Ile			
		275					280					285						
Cys	Ser	Leu	Arg	Asn	Ser	Glu	Val	Lys	Asn	Thr	Leu	Lys	Arg	Val	Leu			
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 <211> 908
 <212> DNA

<213> Homo sapiens

<400> 25

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acagggatat acaaagtgtc ctgcggaggc tgtgcagcag aacagtcgaa tctcatgata 840
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<210> 26

<211> 270

<212> PRT

<213> Homo sapiens

<400> 26

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 1             5             10            15

Leu Ala Thr Val Pro Lys Met Ile Val Asp Met Gly Ser His Ser Arg
      20             25            30

Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val Leu
      35             40            45

Phe Ala Cys Ile Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp Gln
      50             55            60

Phe Val Ala Ile Cys His Pro Leu His Tyr Pro Val Ile Met Asn Pro
      65             70            75            80

His Leu Cys Val Phe Leu Val Leu Val Ser Phe Phe Leu Ser Leu Leu
      85             90            95

Asp Ser Gln Leu His Ser Trp Ile Val Leu Gln Phe Thr Phe Phe Lys
      100            105            110
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Asn	Val	Glu	Ile	Ser	Asn	Phe	Phe	Cys	Asp	Pro	Ser	Gln	Leu	Leu	Asn
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	130					135					140				
Ser	Ile	Leu	Phe	Ser	Phe	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Leu	Ser	Tyr
145					150					155					160
Tyr	Lys	Ile	Val	Pro	Ser	Ile	Leu	Arg	Ile	Ser	Ser	Ser	Asp	Gly	Lys
				165					170					175	
Tyr	Lys	Ala	Phe	Ser	Ile	Cys	Gly	Ser	His	Leu	Ala	Val	Val	Cys	Leu
		180						185					190		
Phe	Tyr	Gly	Thr	Gly	Ile	Gly	Val	Tyr	Leu	Thr	Ser	Ala	Val	Ser	Pro
	195						200					205			
Pro	Pro	Arg	Asn	Gly	Val	Val	Ala	Ser	Val	Met	Tyr	Ala	Val	Val	Thr
	210					215					220				
Pro	Met	Leu	Asn	Pro	Phe	Ile	Tyr	Ser	Leu	Arg	Asn	Arg	Asp	Ile	Gln
225					230					235					240
Ser	Val	Leu	Arg	Arg	Leu	Cys	Ser	Arg	Thr	Val	Glu	Ser	His	Asp	Met
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Phe	His	Pro	Phe	Ser	Cys	Val	Gly	Glu	Lys	Gly	Gln	Pro	His		
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<210> 27
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 27															
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			20					25					30		
Ser	Met	Tyr	Leu	Ala	Thr	Val	Leu	Gly	Asn	Leu	Leu	Ile	Ile	Leu	Ser
		35						40				45			
Val	Ser	Ile	Asp	Ser	Cys	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Ser
		50				55					60				

Asn	Leu	Ser	Phe	Val	Asp	Ile	Cys	Phe	Ser	Phe	Thr	Thr	Val	Pro	Lys
65					70					75					80
Met	Leu	Ala	Asn	His	Ile	Leu	Glu	Thr	Gln	Thr	Ile	Ser	Phe	Cys	Gly
				85					90					95	
Cys	Leu	Thr	Gln	Met	Tyr	Phe	Val	Phe	Met	Phe	Val	Asp	Met	Asp	Asn
			100					105					110		
Phe	Leu	Leu	Ala	Val	Met	Ala	Tyr	Asp	His	Phe	Val	Ala	Val	Cys	His
			115					120					125		
Pro	Leu	His	Tyr	Thr	Ala	Lys	Met	Thr	His	Gln	Leu	Cys	Ala	Leu	Leu
			130				135					140			
Val	Ala	Gly	Leu	Trp	Val	Val	Ala	Asn	Leu	Asn	Val	Leu	Leu	His	Thr
145					150					155					160
Leu	Leu	Met	Ala	Pro	Leu	Ser	Phe	Cys	Ala	Asp	Asn	Ala	Ile	Thr	His
				165					170					175	
Phe	Phe	Cys	Asp	Val	Thr	Pro	Leu	Leu	Lys	Leu	Ser	Cys	Ser	Asp	Thr
			180						185					190	
His	Leu	Asn	Glu	Val	Ile	Ile	Leu	Ser	Glu	Gly	Ala	Leu	Val	Met	Ile
		195					200					205			
Thr	Pro	Phe	Leu	Cys	Ile	Leu	Ala	Ser	Tyr	Met	His	Ile	Thr	Cys	Thr
		210					215				220				
Val	Leu	Lys	Val	Pro	Ser	Thr	Lys	Gly	Arg	Trp	Lys	Ala	Phe	Ser	Thr
225					230					235					240
Cys	Gly	Ser	His	Leu	Ala	Val	Val	Leu	Leu	Phe	Tyr	Ser	Thr	Ile	Ile
				245					250					255	
Ala	Val	Tyr	Phe	Asn	Pro	Leu	Ser	Ser	His	Ser	Ala	Glu	Lys	Asp	Thr
			260					265					270		
Met	Ala	Thr	Val	Leu	Tyr	Thr	Val	Val	Thr	Pro	Met	Leu	Asn	Pro	Phe
		275					280					285			
Ile	Tyr	Ser	Leu	Arg	Asn	Arg	Tyr	Leu	Lys	Gly	Ala	Leu	Lys	Lys	Val
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Val	Gly	Arg													
305															

<210> 28
 <211> 307
 <212> PRT
 <213> Homo sapiens

<400> 28
 Met Glu Gly Lys Asn Gln Thr Asn Ile Ser Glu Phe Leu Leu Leu Gly
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 20 25 30
 Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala
 35 40 45
 Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala
 50 55 60
 Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys
 65 70 75 80
 Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro Gly
 85 90 95
 Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn
 100 105 110
 Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
 115 120 125
 Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser Leu
 130 135 140
 Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His Thr
 145 150 155 160
 Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His His
 165 170 175
 Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp Thr
 180 185 190
 Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe Val
 195 200 205
 Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser Ala

210		215		220
Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys Ala Phe Ser Thr				
225		230		240
Cys Gly Ser His Leu Ala Leu Val Ile Leu Phe Tyr Gly Ala Ile Thr				
	245		250	255
Gly Val Tyr Met Ser Pro Leu Ser Asn His Ser Thr Glu Lys Asp Ser				
	260		265	270
Ala Ala Ser Val Ile Phe Met Val Val Ala Pro Val Leu Asn Pro Phe				
	275		280	285
Ile Tyr Ser Leu Arg Asn Asn Glu Leu Lys Gly Thr Leu Lys Lys Thr				
	290		295	300
Leu Ser Arg				
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<210> 29
 <211> 299
 <212> PRT
 <213> Homo sapiens

<400> 29
Met Glu Gly Lys Asn Gln Thr Asn Ile Ser Glu Phe Leu Leu Leu Gly
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Phe Ser Ser Trp Gln Gln Gln Gln Val Leu Leu Phe Ala Leu Phe Leu
20 25 30
Cys Leu Tyr Leu Thr Gly Leu Phe Gly Asn Leu Leu Ile Leu Leu Ala
35 40 45
Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu Ala
50 55 60
Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro Lys
65 70 75 80
Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro Gly
85 90 95
Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp Asn
100 105 110

Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys His
115 120 125

Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser Leu
130 135 140

Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His Thr
145 150 155 160

Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His His
165 170 175

Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp Thr
180 185 190

Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe Val
195 200 205

Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser Ala
210 215 220

Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys Ala Phe Ser Thr
225 230 235 240

Cys Gly Ser His Leu Ala Leu Val Ile Leu Phe Tyr Gly Ala Ile Thr
245 250 255

Gly Val Tyr Met Ser Pro Leu Ser Asn His Ser Thr Glu Lys Asp Ser
260 265 270

Ala Ala Ser Val Ile Phe Met Val Val Ala Pro Val Leu Asn Pro Phe
275 280 285

Ile Tyr Ser Leu Arg Asn Asn Glu Leu Lys Gly
290 295

<210> 30
<211> 299
<212> PRT
<213> Homo sapiens

<400> 30
Met Ser Gly Thr Asn Gln Ser Ser Val Ser Glu Phe Leu Leu Leu Gly
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Leu Ser Arg Gln Pro Gln Gln Gln His Leu Leu Phe Val Phe Phe Leu
20 25 30

Ser	Met	Tyr	Leu	Ala	Thr	Val	Leu	Gly	Asn	Leu	Leu	Ile	Ile	Leu	Ser	35	40	45	
Val	Ser	Ile	Asp	Ser	Cys	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Ser	50	55	60	
Asn	Leu	Ser	Phe	Val	Asp	Ile	Cys	Phe	Ser	Phe	Thr	Thr	Val	Pro	Lys	65	70	75	80
Met	Leu	Ala	Asn	His	Ile	Leu	Glu	Thr	Gln	Thr	Ile	Ser	Phe	Cys	Gly	85	90	95	
Cys	Leu	Thr	Gln	Met	Tyr	Phe	Val	Phe	Met	Phe	Val	Asp	Met	Asp	Asn	100	105	110	
Phe	Leu	Leu	Ala	Val	Met	Ala	Tyr	Asp	His	Phe	Val	Ala	Val	Cys	His	115	120	125	
Pro	Leu	His	Tyr	Thr	Ala	Lys	Met	Thr	His	Gln	Leu	Cys	Ala	Leu	Leu	130	135	140	
Val	Ala	Gly	Leu	Trp	Val	Val	Ala	Asn	Leu	Asn	Val	Leu	Leu	His	Thr	145	150	155	160
Leu	Leu	Met	Ala	Pro	Leu	Ser	Phe	Cys	Ala	Asp	Asn	Ala	Ile	Thr	His	165	170	175	
Phe	Phe	Cys	Asp	Val	Thr	Pro	Leu	Leu	Lys	Leu	Ser	Cys	Ser	Asp	Thr	180	185	190	
His	Leu	Asn	Glu	Val	Ile	Ile	Leu	Ser	Glu	Gly	Ala	Leu	Val	Met	Ile	195	200	205	
Thr	Pro	Phe	Leu	Cys	Ile	Leu	Ala	Ser	Tyr	Met	His	Ile	Thr	Cys	Thr	210	215	220	
Val	Leu	Lys	Val	Pro	Ser	Thr	Lys	Gly	Arg	Trp	Lys	Ala	Phe	Ser	Thr	225	230	235	240
Cys	Gly	Ser	His	Leu	Ala	Val	Val	Leu	Leu	Phe	Tyr	Ser	Thr	Ile	Ile	245	250	255	
Ala	Val	Tyr	Phe	Asn	Pro	Leu	Ser	Ser	His	Ser	Ala	Glu	Lys	Asp	Thr	260	265	270	
Met	Ala	Thr	Val	Leu	Tyr	Thr	Val	Val	Thr	Pro	Met	Leu	Asn	Pro	Phe	275	280	285	

Ile Tyr Ser Leu Arg Asn Arg Tyr Leu Lys Gly
 290 295

<210> 31
 <211> 189
 <212> PRT
 <213> Homo sapiens

<400> 31
 Ala Ile Gly Ser Asp His Cys Leu His Thr Pro Met Tyr Phe Phe Leu
 1 5 10 15

Ala Asn Leu Ser Leu Val Asp Leu Cys Leu Pro Ser Ala Thr Val Pro
 20 25 30

Lys Met Leu Leu Asn Ile Gln Thr Gln Thr Gln Thr Ile Ser Tyr Pro
 35 40 45

Gly Cys Leu Ala Gln Met Tyr Phe Cys Met Met Phe Ala Asn Met Asp
 50 55 60

Asn Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys
 65 70 75 80

His Pro Leu His Tyr Ser Thr Ile Met Ala Leu Arg Leu Cys Ala Ser
 85 90 95

Leu Val Ala Ala Pro Trp Val Ile Ala Ile Leu Asn Pro Leu Leu His
 100 105 110

Thr Leu Met Met Ala His Leu His Phe Cys Ser Asp Asn Val Ile His
 115 120 125

His Phe Phe Cys Asp Ile Asn Ser Leu Leu Pro Leu Ser Cys Ser Asp
 130 135 140

Thr Ser Leu Asn Gln Leu Ser Val Leu Ala Thr Val Gly Leu Ile Phe
 145 150 155 160

Val Val Pro Ser Val Cys Ile Leu Val Ser Tyr Ile Leu Ile Val Ser
 165 170 175

Ala Val Met Lys Val Pro Ser Ala Gln Gly Lys Leu Lys
 180 185

<210> 32
 <211> 170
 <212> PRT
 <213> Homo sapiens

<400> 32
 Ala Val Ser Arg Glu Lys Ala Leu Gln Thr Thr Thr Asn Tyr Leu Ile
 1 5 10 15
 Val Ser Leu Ala Val Ala Asp Leu Leu Val Ala Thr Leu Val Met Pro
 20 25 30
 Trp Val Val Tyr Leu Glu Val Val Gly Glu Trp Lys Phe Ser Arg Ile
 35 40 45
 His Cys Asp Ile Phe Val Thr Leu Asp Val Met Met Cys Thr Ala Ser
 50 55 60
 Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala
 65 70 75 80
 Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr
 85 90 95
 Val Met Ile Ala Ile Val Trp Val Leu Ser Phe Thr Ile Ser Cys Pro
 100 105 110
 Met Leu Phe Gly Leu Asn Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala
 115 120 125
 Asn Pro Ala Phe Val Val Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro
 130 135 140
 Phe Ile Val Thr Leu Leu Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg
 145 150 155 160
 Arg Arg Arg Lys Arg Val Asn Thr Lys Arg
 165 170

<210> 33
 <211> 92
 <212> DNA
 <213> Homo sapiens

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 gaggtcagga gatcgagacc atcctggcta ac 92

<210> 34
 <211> 1040
 <212> DNA
 <213> Homo sapiens

<400> 34
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 ctgggatttc ccgttggccc aaggattcag atgctcctct ttgggctctt ctccctgttc 180
 tacgtcttca ccctgctggg gaacggggacc atactggggc tcatctcact ggactccaga 240
 ctgcacgccc ccatgtactt cttcctctca cacctggcgg tcgtcgacat cgcctacgcc 300
 tgcaacacgg tgccccggat gctggtgaac ctcttgcac cagccaagcc catctccttt 360
 gcgggcccga tgatgcagac ctttctgttt tccacttttg ctgtcacaga atgtctcttc 420
 ctggtggtga tgtcctatga tctgtacgtg gccatctgcc accccctcgc atatttggcc 480
 atcatgacct ggagagtctg catcaccctc gcggtgactt cctggaccac tggagtcctt 540
 ttatccttga ttcattcttg gttacttcta cctttaccct tctgtaggcc ccagaaaatt 600
 tatcactttt tttgtgaaat cttggctgtt ctcaaacttg cctgtgcaga taccacatc 660
 aatgagaaca tgggtcttggc cggagcaatt tctgggctgg tgggaccctt gtccacaatt 720
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 ctgctgtttc acagcctctt taatcccatg ctcaatcccc ttatctgtag tcttaggaac 960
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<210> 35
 <211> 260
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT
 <222> (152)..(165)
 <223> Wherein Xaa is any amino acid.

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 Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val
 20 25 30
 Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met
 35 40 45

Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu
 50 55 60
 Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg
 65 70 75 80
 Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr
 85 90 95
 Ser Trp Thr Thr Gly Val Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 100 105 110
 Xaa Xaa Xaa Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys
 115 120 125
 Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn
 130 135 140
 Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu
 145 150 155 160
 Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln
 165 170 175
 Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys Phe Ser
 180 185 190
 His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile Met Tyr
 195 200 205
 Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr Leu Leu
 210 215 220
 Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile Cys Ser
 225 230 235 240
 Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu Gly Val
 245 250 255
 Glu Arg Ala Leu
 260

<210> 36
 <211> 260
 <212> PRT
 <213> Homo sapiens

<400> 36

Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala
1 5 10 15

Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val
20 25 30

Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met
35 40 45

Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu
50 55 60

Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg
65 70 75 80

Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr
85 90 95

Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu
100 105 110

Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys
115 120 125

Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn
130 135 140

Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu
145 150 155 160

Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln
165 170 175

Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys Phe Ser
180 185 190

His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile Met Tyr
195 200 205

Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr Leu Leu
210 215 220

Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile Cys Ser
225 230 235 240

Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu Gly Val
245 250 255

Glu Arg Ala Leu
260

<210> 37

<211> 92

<212> DNA

<213> Homo sapiens

<400> 37

ggatgcggtg gctcacgcct gtaatcccag cactttggga ggccgaggtg ggcggatcat 60
gaggtcagtt gttcgagacc aacctgggtca ac 92

<210> 38

<211> 310

<212> PRT

<213> Homo sapiens

<400> 38

Met Gly Asp Asn Ile Thr Ser Ile Arg Glu Phe Leu Leu Leu Gly Phe
1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg
85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu
100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro
115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala
130 135 140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val
 145 150 155 160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe
 165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His
 180 185 190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly
 195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile
 210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys
 225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile
 245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr
 260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile
 275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu
 290 295 300

Gly Val Glu Arg Ala Leu
 305 310

<210> 39
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 39
 Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val
 1 5 10 15

Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu
 20 25 30

Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr
 35 40 45

Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu Val Val
50 55 60

Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Leu
65 70 75 80

Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr Ser Trp
85 90 95

Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu Leu Pro
100 105 110

Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys Glu Ile
115 120 125

Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn Glu Asn
130 135 140

Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu Ser Thr
145 150 155 160

Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln Ile Gln
165 170 175

Ser Arg Glu Val Gln Arg Lys
180

<210> 40

<211> 164

<212> PRT

<213> Homo sapiens

<400> 40

Ala Leu Gln Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala
1 5 10 15

Asp Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu
20 25 30

Val Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val
35 40 45

Thr Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala
50 55 60

Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn

65		70		75		80									
Thr	Arg	Tyr	Ser	Ser	Lys	Arg	Arg	Val	Thr	Val	Met	Ile	Ala	Ile	Val
				85				90						95	
Trp	Val	Leu	Ser	Phe	Thr	Ile	Ser	Cys	Pro	Met	Leu	Phe	Gly	Leu	Asn
			100					105					110		
Asn	Thr	Asp	Gln	Asn	Glu	Cys	Ile	Ile	Ala	Asn	Pro	Ala	Phe	Val	Val
		115					120					125			
Tyr	Ser	Ser	Ile	Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu
	130					135					140				
Val	Tyr	Ile	Lys	Ile	Tyr	Ile	Val	Leu	Arg	Arg	Arg	Arg	Lys	Arg	Val
145					150				155						160
Asn Thr Lys Arg															

<210> 41
 <211> 94
 <212> DNA
 <213> Homo sapiens

<400> 41
 ccgggcgcgg tggctcacgc ctgtaatccc agcacttttg gaggccgagg cgggtggatc 60
 atgaggtcag gagatcgaga ccaccttggc taac 94

<210> 42
 <211> 1090
 <212> DNA
 <213> Homo sapiens

<400> 42
 aagaagttct tcagatgcga ggtttcaaca aaaccactgt ggttacacag ttcaccttg 60
 tgggtttctc cagcctgggg gagctccagc tgctgctttt tgctatcttt cttctcctat 120
 acttgacaat cctggtggcc aatgtgacca tcatggccgt tatcgcttc agctggactc 180
 tccacactcc catgtatggc tttctattca tcctttcatt ttctgagtcc tgctacactt 240
 ttgtcatcat ccctcagctg ctggtccacc tgctctcaga caccaagacc atctccttca 300
 tggcctgtgc caccagctg ttctttttcc ttggctttgc ttgcaccaac tgctcctca 360
 ttgctgtgat gggatatgat cgctatgtag caatttgta ccctctgagg tacacactca 420
 tcataaacia aaggctgggg ttggagttga tttctctctc aggagccaca gggtttcttta 480
 ttgctttggg ggccaccaac ctcatttggt acatgcggtt ttgtggcccc aacagggtta 540
 accactatct ctgtgacatg gcacctgtta tcaagtttag ctgcactgac acccatgtga 600
 aagagctggc tttatttagc ctcagcatcc tggtaattat ggtgcctttt ctgttaattc 660

tcatatccta tggcttcata gttaacacca tcctgaagat cccctcagct gagggcaaga 720
 aggcccttgt cacctgtgcc tcacatctca ctgtggtctt tgtccactat ggctgtgcct 780
 ctatcatcta tctgcggccc aagtccaagt ctgcctcaga caaggatcag ttggtggcag 840
 tgacctacac agtgggttact cccttactta atcctcttgt ctacagtctg aggaacaaaag 900
 aggtaaaaac tgcattgaaa agagttcttg gaatgcctgt ggcaaccaag atgagctaac 960
 aaaaaataat aataaaatta actaggatag tcacagaaga aatcaaaggc ataaaatttt 1020
 ctgaccttta atgcatgtct cagacagtgt ttccaaggat taagactact cttgcctttt 1080
 tattttctcc 1090

<210> 43

<211> 303

<212> PRT

<213> Homo sapiens

<400> 43

Met Arg Gly Phe Asn Lys Thr Thr Val Val Thr Gln Phe Ile Leu Val
 1 5 10 15

Gly Phe Ser Ser Leu Gly Glu Leu Gln Leu Leu Leu Phe Val Ile Phe
 20 25 30

Leu Leu Leu Tyr Leu Thr Ile Leu Val Ala Asn Val Thr Ile Met Ala
 35 40 45

Val Ile Arg Phe Ser Trp Thr Leu His Thr Pro Met Tyr Gly Phe Leu
 50 55 60

Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr Thr Phe Val Ile Ile Pro
 65 70 75 80

Gln Leu Leu Val His Leu Leu Ser Asp Thr Lys Thr Ile Ser Phe Met
 85 90 95

Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu Gly Phe Ala Cys Thr Asn
 100 105 110

Cys Leu Leu Ile Ala Val Met Gly Tyr Asp Arg Tyr Val Ala Ile Cys
 115 120 125

His Pro Leu Arg Tyr Thr Leu Ile Ile Asn Lys Arg Leu Gly Leu Glu
 130 135 140

Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe Phe Ile Ala Leu Val Ala
 145 150 155 160

Thr Asn Leu Ile Cys Asp Met Arg Phe Cys Gly Pro Asn Arg Val Asn
 165 170 175

His Tyr Phe Cys Asp Met Ala Pro Val Ile Lys Leu Ala Cys Thr Asp
180 185 190

Thr His Val Lys Glu Leu Ala Leu Phe Ser Leu Ser Ile Leu Val Ile
195 200 205

Met Val Pro Phe Leu Leu Ile Leu Ile Ser Tyr Gly Phe Ile Val Asn
210 215 220

Thr Ile Leu Lys Ile Pro Ser Ala Glu Gly Lys Lys Ala Phe Val Thr
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Phe Val His Tyr Gly Cys Ala Ser
245 250 255

Ile Ile Tyr Leu Arg Pro Lys Ser Lys Ser Ala Ser Asp Lys Asp Gln
260 265 270

Leu Val Ala Val Thr Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu
275 280 285

Val Tyr Ser Leu Arg Asn Lys Glu Val Lys Thr Ala Leu Lys Arg
290 295 300

<210> 44

<211> 304

<212> PRT

<213> Homo sapiens

<400> 44

Met Leu Gly Leu Asn His Thr Ser Met Ser Glu Phe Ile Leu Val Gly
1 5 10 15

Phe Ser Ala Phe Pro His Leu Gln Leu Met Leu Phe Leu Leu Phe Leu
20 25 30

Leu Met Tyr Leu Phe Thr Leu Leu Gly Asn Leu Leu Ile Met Ala Thr
35 40 45

Val Trp Ser Glu Arg Ser Leu His Thr Pro Met Tyr Leu Phe Leu Cys
50 55 60

Val Leu Ser Val Ser Glu Ile Leu Tyr Thr Val Ala Ile Ile Pro Arg
65 70 75 80

Met Leu Ala Asp Leu Leu Ser Thr Gln Arg Ser Ile Ala Phe Leu Ala

				85					90					95					
Cys	Ala	Ser	Gln	Met	Phe	Phe	Ser	Phe	Ser	Phe	Gly	Phe	Thr	His	Ser				
			100					105					110						
Phe	Leu	Leu	Thr	Val	Met	Gly	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	His				
		115					120					125							
Pro	Leu	Arg	Tyr	Asn	Val	Leu	Met	Ser	Pro	Arg	Gly	Cys	Ala	Cys	Leu				
		130				135					140								
Val	Gly	Cys	Ser	Trp	Ala	Gly	Gly	Ser	Val	Met	Gly	Met	Val	Val	Thr				
145					150					155					160				
Ser	Ala	Ile	Phe	Gln	Leu	Thr	Phe	Cys	Gly	Ser	His	Glu	Ile	Gln	His				
			165					170						175					
Phe	Leu	Cys	His	Val	Pro	Pro	Leu	Leu	Lys	Leu	Ala	Cys	Gly	Asn	Asn				
		180						185					190						
Val	Pro	Ala	Val	Ala	Leu	Gly	Val	Gly	Leu	Val	Cys	Ile	Met	Ala	Leu				
		195					200					205							
Leu	Gly	Gly	Phe	Leu	Leu	Ile	Leu	Leu	Ser	Tyr	Ala	Phe	Ile	Val	Ala				
	210					215					220								
Asp	Ile	Leu	Lys	Ile	Pro	Ser	Ala	Glu	Gly	Arg	Asn	Lys	Ala	Phe	Ser				
225				230						235					240				
Thr	Cys	Ala	Ser	His	Leu	Ile	Val	Val	Ile	Val	His	Tyr	Gly	Phe	Ala				
			245					250						255					
Ser	Val	Ile	Tyr	Leu	Lys	Pro	Lys	Gly	Pro	His	Ser	Gln	Glu	Gln	Asp				
		260						265					270						
Thr	Leu	Met	Ala	Thr	Thr	Tyr	Ala	Val	Leu	Thr	Pro	Phe	Leu	Ser	Pro				
		275					280					285							
Ile	Ile	Phe	Ser	Leu	Arg	Asn	Lys	Glu	Leu	Lys	Val	Ala	Met	Lys	Arg				
	290					295					300								

<210> 45
 <211> 187
 <212> PRT

<213> Homo sapiens

<400> 45

Asn	Val	Thr	Ile	Met	Ala	Val	Ile	Arg	Phe	Ser	Trp	Thr	Leu	His	Thr
1				5					10					15	

Pro	Met	Tyr	Gly	Phe	Leu	Phe	Ile	Leu	Ser	Phe	Ser	Glu	Ser	Cys	Tyr
			20					25						30	

Thr	Phe	Val	Ile	Ile	Pro	Gln	Leu	Leu	Val	His	Leu	Leu	Ser	Asp	Thr
		35					40						45		

Lys	Thr	Ile	Ser	Phe	Met	Ala	Cys	Ala	Thr	Gln	Leu	Phe	Phe	Phe	Leu
	50					55					60				

Gly	Phe	Ala	Cys	Thr	Asn	Cys	Leu	Leu	Ile	Ala	Val	Met	Gly	Tyr	Asp
65					70					75					80

Arg	Tyr	Val	Ala	Ile	Cys	His	Pro	Leu	Arg	Tyr	Thr	Leu	Ile	Ile	Asn
				85					90					95	

Lys	Arg	Leu	Gly	Leu	Glu	Leu	Ile	Ser	Leu	Ser	Gly	Ala	Thr	Gly	Phe
			100					105						110	

Phe	Ile	Ala	Leu	Val	Ala	Thr	Asn	Leu	Ile	Cys	Asp	Met	Arg	Phe	Cys
		115					120					125			

Gly	Pro	Asn	Arg	Val	Asn	His	Tyr	Phe	Cys	Asp	Met	Ala	Pro	Val	Ile
	130					135					140				

Lys	Leu	Ala	Cys	Thr	Asp	Thr	His	Val	Lys	Glu	Leu	Ala	Leu	Phe	Ser
145					150					155					160

Leu	Ser	Ile	Leu	Val	Ile	Met	Val	Pro	Phe	Leu	Leu	Ile	Leu	Ile	Ser
				165					170					175	

Tyr	Gly	Phe	Ile	Val	Asn	Thr	Ile	Leu	Lys	Ile					
			180						185						

<210> 46

<211> 168

<212> PRT

<213> Homo sapiens

<400> 46

Asn	Val	Leu	Val	Cys	Met	Ala	Val	Ser	Arg	Glu	Lys	Ala	Leu	Gln	Thr
1				5					10					15	

Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val
 20 25 30
 Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu
 35 40 45
 Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val
 50 55 60
 Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp
 65 70 75 80
 Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser
 85 90 95
 Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu Ser
 100 105 110
 Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp Gln
 115 120 125
 Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser Ile
 130 135 140
 Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile Lys
 145 150 155 160
 Ile Tyr Ile Val Leu Arg Arg Arg
 165

<210> 47
 <211> 96
 <212> DNA
 <213> Homo sapiens

<400> 47
 ctgggctcgg tggctcacac gtgtaatccc agcactttgg gaggccgagg cgggcggatc 60
 acatgaggtc aggagttcga gaccagcctg gtcaac 96

<210> 48
 <211> 94
 <212> DNA
 <213> Homo sapiens

<400> 48

gtagccagg atggtctcga tctcctgacc tcatgatcca cccgcctcgg cctcccaaag 60
 tgctgggatt acaggcgtga gccaccgcgc ccgg 94

<210> 49
 <211> 299
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT
 <222> (190)..(202)
 <223> Wherein Xaa is any amino acid.

<400> 49
 Thr Leu Ile Thr Asp Phe Val Phe Gln Gly Phe Ser Ser Phe His Glu
 1 5 10 15
 Gln Gln Ile Thr Leu Phe Gly Val Phe Leu Ala Leu Tyr Ile Leu Thr
 20 25 30
 Leu Ala Gly Asn Ile Ile Ile Val Thr Ile Ile Arg Ile Asp Leu His
 35 40 45
 Leu His Thr Pro Met Tyr Phe Phe Leu Ser Met Leu Ser Thr Ser Glu
 50 55 60
 Thr Val Tyr Thr Leu Val Ile Leu Pro Arg Met Leu Ser Ser Leu Val
 65 70 75 80
 Gly Met Ser Gln Pro Met Ser Leu Ala Gly Cys Ala Thr Gln Met Phe
 85 90 95
 Phe Phe Val Thr Phe Gly Ile Thr Asn Cys Phe Leu Leu Thr Ala Met
 100 105 110
 Gly Tyr Asp Arg Tyr Val Ala Ile Cys Asn Pro Leu Arg Tyr Met Val
 115 120 125
 Ile Met Asn Lys Arg Leu Arg Ile Gln Leu Val Leu Gly Ala Cys Ser
 130 135 140
 Ile Gly Leu Ile Val Ala Ile Thr Gln Val Thr Ser Val Phe Arg Leu
 145 150 155 160
 Pro Phe Cys Ala Arg Lys Val Pro His Phe Phe Cys Asp Ile Arg Pro
 165 170 175

Val	Met	Lys	Leu	Ser	Cys	Ile	Asp	Thr	Thr	Val	Asn	Glu	Xaa	Xaa	Xaa			
			180						185				190					
Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Xaa	Pro	Met	Gly	Leu	Val	Phe			
			195						200				205					
Ile	Ser	Tyr	Val	Leu	Ile	Ile	Ser	Thr	Ile	Leu	Lys	Ile	Ala	Ser	Val			
			210						215				220					
Glu	Gly	Arg	Lys	Lys	Ala	Phe	Ala	Thr	Cys	Ala	Ser	His	Leu	Thr	Val			
			225						230				235		240			
Val	Ile	Val	His	Tyr	Ser	Cys	Ala	Ser	Ile	Ala	Tyr	Leu	Lys	Pro	Lys			
				245						250					255			
Ser	Glu	Asn	Thr	Arg	Glu	His	Asp	Gln	Leu	Ile	Ser	Val	Thr	Tyr	Thr			
				260					265					270				
Val	Ile	Thr	Pro	Leu	Leu	Asn	Pro	Val	Val	Tyr	Thr	Leu	Arg	Asn	Lys			
			275						280				285					
Glu	Val	Lys	Asp	Ala	Leu	Cys	Arg	Ala	Val	Gly								
			290						295									

<210> 50

<211> 299

<212> PRT

<213> Homo sapiens

<400> 50

Thr	Val	Val	Thr	Gln	Phe	Ile	Leu	Val	Gly	Phe	Ser	Ser	Leu	Gly	Glu			
									1				5		10			15
Leu	Gln	Leu	Leu	Leu	Phe	Val	Ile	Phe	Leu	Leu	Leu	Tyr	Leu	Thr	Ile			
				20					25						30			
Leu	Val	Ala	Asn	Val	Thr	Ile	Met	Ala	Val	Ile	Arg	Phe	Ser	Trp	Thr			
				35					40				45					
Leu	His	Thr	Pro	Met	Tyr	Gly	Phe	Leu	Phe	Ile	Leu	Ser	Phe	Ser	Glu			
				50				55				60						
Ser	Cys	Tyr	Thr	Phe	Val	Ile	Ile	Pro	Gln	Leu	Leu	Val	His	Leu	Leu			
				65				70				75			80			
Ser	Asp	Thr	Lys	Thr	Ile	Ser	Leu	Met	Ala	Cys	Ala	Thr	Gln	Leu	Phe			
				85					90						95			

Phe Phe Leu Gly Phe Ala Cys Thr Asn Cys Leu Leu Ile Ala Val Met
100 105 110

Gly Tyr Asp Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Thr Leu
115 120 125

Ile Ile Asn Lys Arg Leu Gly Leu Glu Leu Ile Ser Leu Ser Gly Ala
130 135 140

Thr Gly Phe Phe Ile Ala Leu Val Ala Thr Asn Leu Ile Cys Asp Met
145 150 155 160

Arg Phe Cys Gly Pro Asn Arg Val Asn His Tyr Phe Cys Asp Met Ala
165 170 175

Pro Val Ile Lys Leu Ala Cys Thr Asp Thr His Val Lys Glu Leu Ala
180 185 190

Leu Phe Ser Leu Ser Ile Leu Val Ile Met Val Pro Phe Leu Leu Ile
195 200 205

Leu Ile Ser Tyr Gly Phe Ile Val Asn Thr Ile Leu Lys Ile Pro Ser
210 215 220

Ala Glu Gly Lys Lys Ala Phe Val Thr Cys Ala Ser His Leu Thr Val
225 230 235 240

Val Phe Val His Tyr Asp Cys Ala Ser Ile Ile Tyr Leu Arg Pro Lys
245 250 255

Ser Lys Ser Ala Ser Asp Lys Asp Gln Leu Val Ala Val Thr Tyr Ala
260 265 270

Val Val Thr Pro Leu Leu Asn Pro Leu Val Tyr Ser Leu Arg Asn Lys
275 280 285

Glu Val Lys Thr Ala Leu Lys Arg Val Leu Gly
290 295

<210> 51

<211> 187

<212> PRT

<213> Homo sapiens

<400> 51

Asn Val Thr Ile Met Ala Val Ile Arg Phe Ser Trp Thr Leu His Thr

1	5	10	15
Pro Met Tyr Gly Phe Leu Phe Ile Leu Ser Phe Ser Glu Ser Cys Tyr			
20	25	30	
Thr Phe Val Ile Ile Pro Gln Leu Leu Val His Leu Leu Ser Asp Thr			
35	40	45	
Lys Thr Ile Ser Leu Met Ala Cys Ala Thr Gln Leu Phe Phe Phe Leu			
50	55	60	
Gly Phe Ala Cys Thr Asn Cys Leu Leu Ile Ala Val Met Gly Tyr Asp			
65	70	75	80
Arg Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Thr Leu Ile Ile Asn			
85	90	95	
Lys Arg Leu Gly Leu Glu Leu Ile Ser Leu Ser Gly Ala Thr Gly Phe			
100	105	110	
Phe Ile Ala Leu Val Ala Thr Asn Leu Ile Cys Asp Met Arg Phe Cys			
115	120	125	
Gly Pro Asn Arg Val Asn His Tyr Phe Cys Asp Met Ala Pro Val Ile			
130	135	140	
Lys Leu Ala Cys Thr Asp Thr His Val Lys Glu Leu Ala Leu Phe Ser			
145	150	155	160
Leu Ser Ile Leu Val Ile Met Val Pro Phe Leu Leu Ile Leu Ile Ser			
165	170	175	
Tyr Gly Phe Ile Val Asn Thr Ile Leu Lys Ile			
180	185		

<210> 52
 <211> 94
 <212> DNA
 <213> Homo sapiens

<400> 52
 gtttagccagg atggtctcaa tctcctgacc tcgtgatccg cctgccttgg cctcccaaag 60
 tgctgggatt acaggcatga gccactgcgc ccgg 94

<210> 53
 <211> 788

<212> DNA
<213> Homo sapiens

<400> 53
cacacccccca tgtgcttctt cctctccaaa ctgtgctcag ctgacatcgg tttcaccttg 60
gccatgggttc ccaagatgat tgtgaacatg cagtgcata gcagagtcac ctcttatgag 120
ggctgcctga cacggatgtc tttctttgtc ctttttgcac gtatggaaga catgctcctg 180
actgtgatgg cctatgactg ctttgtagcc atctgtcgcc ctctgcacta cccagtcac 240
gtgaatcctc acctctgtgt cttcttcgtc ttgggtgtcct ttttccttag cccgttggat 300
tcccagctgc acagttggat tgtgttacta ttcaccatca tcaagaatgt ggaaatcact 360
aattttgtct gtgaaccctc tcaacttctc aaccttgctt gttctgacag cgtcatcaat 420
aacatattca tatatttoga tagtactatg tttgggtttc ttcccatttc agggatcctt 480
ttgtcttact ataaaattgt cccctccatt ctaaggatgt catcgtcaga tgggaagtat 540
aaaggcttct ccacctgtgg ctcttacctg gcagttgttt gctcatttga tgggaacaggc 600
attggcatgt acctgacttc agctgtgtca ccacccccca ggaatgggtgt ggtggcgtca 660
gtgatgtatg ctgtggtcac ccccatgctg aaccttttca tctacagcct aggaaagagg 720
gatatacaaa gtgtcctgcg gaggtgtgac agcagaacag tcgaatctca tgatatgttc 780
catccttt 788

<210> 54
<211> 788
<212> DNA
<213> Homo sapiens

<400> 54
cacacccccca tgtgcttctt cctctccaac ctgtgctggg ctgacatcgg tttcaccttg 60
gccacgggttc ctaagatgat tgtggacatg cagtctcata ccagagtcac ctcttatgag 120
ggctgcctga cacggatata tttcttggtc ctttttgcac gtatagaaga catgctcctg 180
actgtgatgg cctatgactg ctttgtagcc atctgtcgcc ctctgcacta cccagtcac 240
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tcccagctgc acagttggat tgtgttacia ttcaccatca tcaagaatgt ggaaatctct 360
aattttgtct gtgaccctc tcaacttctc aaacttgcct gttctgacag cgtcatcaat 420
agcatattca tgtatttcca tagtactatg tttgggtttc ttcccatttc agggatcctt 480
ttgtcttact ataaaatcgt cccctccatt ctaaggattt catcatcaga tgggaagtat 540
aaagccttct ccacctgtgg ctctcacttg gcagttgttt gctgatttta tgggaacaggc 600
attggcgtgt acctgacttc agctgtgtca ccacccccca ggaatgggtgt ggtagcgtca 660
gtgatgtacg ctgtggtcac ccccatgctg aaccttttca tctacagcct gagaaacagg 720
gacatacaaa gtgccctgcg gaggtgtctc agcagaacag tcgaatctca tgatctgttc 780
catccttt 788

<210> 55
<211> 265
<212> PRT
<213> Homo sapiens

<400> 55

Pro	Met	Cys	Phe	Phe	Leu	Ser	Lys	Leu	Cys	Ser	Ala	Asp	Ile	Gly	Phe	1	5	10	15
Thr	Leu	Ala	Met	Val	Pro	Lys	Met	Ile	Val	Asn	Met	Gln	Ser	His	Ser	20	25	30	
Arg	Val	Ile	Ser	Tyr	Glu	Gly	Cys	Leu	Thr	Arg	Met	Ser	Phe	Phe	Val	35	40	45	
Leu	Phe	Ala	Cys	Met	Glu	Asp	Met	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp	50	55	60	
Cys	Phe	Val	Ala	Ile	Cys	Arg	Pro	Leu	His	Tyr	Pro	Val	Ile	Val	Asn	65	70	75	80
Pro	His	Leu	Cys	Val	Phe	Phe	Val	Leu	Val	Ser	Phe	Phe	Leu	Ser	Pro	85	90	95	
Leu	Asp	Ser	Gln	Leu	His	Ser	Trp	Ile	Val	Leu	Leu	Phe	Thr	Ile	Ile	100	105	110	
Lys	Asn	Val	Glu	Ile	Thr	Asn	Phe	Val	Cys	Glu	Pro	Ser	Gln	Leu	Leu	115	120	125	
Asn	Leu	Ala	Cys	Ser	Asp	Ser	Val	Ile	Asn	Asn	Ile	Phe	Ile	Tyr	Phe	130	135	140	
Asp	Ser	Thr	Met	Phe	Gly	Phe	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Leu	Ser	145	150	155	160
Tyr	Tyr	Lys	Ile	Val	Pro	Ser	Ile	Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly	165	170	175	
Lys	Tyr	Lys	Gly	Phe	Ser	Thr	Cys	Gly	Ser	Tyr	Leu	Ala	Val	Val	Cys	180	185	190	
Ser	Phe	Asp	Gly	Thr	Gly	Ile	Gly	Met	Tyr	Leu	Thr	Ser	Ala	Val	Ser	195	200	205	
Pro	Pro	Pro	Arg	Asn	Gly	Val	Val	Ala	Ser	Val	Met	Tyr	Ala	Val	Val	210	215	220	
Thr	Pro	Met	Leu	Asn	Leu	Phe	Ile	Tyr	Ser	Leu	Gly	Lys	Arg	Asp	Ile	225	230	235	240
Gln	Ser	Val	Leu	Arg	Arg	Leu	Cys	Ser	Arg	Thr	Val	Glu	Ser	His	Asp	245	250	255	

Met Phe His Pro Phe Ser Cys Val Gly
 260 265

<210> 56
 <211> 264
 <212> PRT
 <213> Homo sapiens

<400> 56
 Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe
 1 5 10 15

Thr Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser
 20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val
 35 40 45

Leu Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp
 50 55 60

Arg Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn
 65 70 75 80

Pro Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu
 85 90 95

Leu Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe
 100 105 110

Lys Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu
 115 120 125

His Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe
 130 135 140

Met Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser
 145 150 155 160

Tyr Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly
 165 170 175

Lys Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys
 180 185 190

Leu Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu
 195 200 205

Pro Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val
 210 215 220

Thr Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile
 225 230 235 240

Gln Ser Ala Leu Cys Arg Leu His Gly Arg Ile Ile Lys Ser His His
 245 250 255

Leu His Pro Phe Cys Tyr Met Gly
 260

<210> 57
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 57
 Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe
 1 5 10 15

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
 20 25 30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
 35 40 45

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
 50 55 60

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
 65 70 75 80

Pro His

<210> 58
 <211> 82
 <212> PRT
 <213> Homo sapiens

<400> 58
 Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val
 1 5 10 15

Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu
 20 25 30

Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val
 35 40 45

Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp
 50 55 60

Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser
 65 70 75 80

Ser Lys

<210> 59
 <211> 866
 <212> DNA
 <213> Homo sapiens

<400> 59
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 gacatcgggtt tcaccttggc catgggttccc aagatgattg tgaacatgca gtcgcatagc 180
 agagtcatct cttatgaggg ctgcctgaca cggatgtctt tctttgtcct ttttgcatgt 240
 atggaagaca tgctcctgac tgtgatggcc tatgactgct ttgtagccat ctgtcgcctt 300
 ctgcactacc cagtcacgt gaatcctcac ctctgtgtct tcttcgtctt ggtgtccttt 360
 ttccttagcc cgttggatcc ccagctgcac agttggattg tgttactatt caccatcacc 420
 aagaatgtgg aaatcactaa ttttgtctgt gaaccctctc aacttctcaa ccttgcttgt 480
 tctgacagcg tcatcaataa catattcata tatttcgata gtactatgtt tggttttctt 540
 cccatttcag ggatcctttt gtcttactat aaaattgtcc cctccattct aaggatgtca 600
 tcgtcagatg ggaagtataa aggcttctcc acctgtggct cttacctggc agttggttgc 660
 tcatttgatg gaacaggcat tggcatgtac ctgacttcag ctgtgtcacc accccccagg 720
 aatgggtgtg tggcgtcagt gatgtatgct gtggtcaccc ccatgctgaa ccttttcata 780
 ctgagcctgg gaaagagggg tatacaaagt gtcctgcgga ggctgtgcag cagaacagtc 840
 gaatctcatg atatgttcca tccttt 866

<210> 60
 <211> 866
 <212> DNA
 <213> Homo sapiens

<400> 60
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 agctctgacc cccacctcca ccccccatg tgcttcttcc tctccaaact gtgctgggct 120
 gacatcgggtt tcaccttggc caccgttctt aagatgattg tggacatgca gtctcatacc 180

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agagtcacatct cttatgaggg ctgcctgaca cggatatcctt tcttggtcct ttttgcatgt 240
atagaagaca tgctcctgac tgtgatggcc tatgactgct ttgtagccat ctgtcgccct 300
ctgcactacc cagtcacgt gaatcctcac ctctgtgtct tcttcctttt ggtatacttt 360
ttccttagct tgttggattc ccagctgcac agttggattg tgttacaatt caccatcatc 420
aagaatgtgg aaatctctaa ttttgtctgt gaccctctc aacttctcaa acttgccctgt 480
tctgacagcg tcatcaatag catattcatg tatttccata gtactatgtt tggttttctt 540
cccatttcag ggatcctttt gtcttactat aaaatcgtcc cctccattct aaggatttca 600
tcatcagatg ggaagtataa agccttctcc acctgtggct ctacttggc agttggttgc 660
tgattttatg gaacaggcat tggcgtgtac ctgacttcag ctgtgtcacc accccccagg 720
aatgggtgtgg tagcgtcagt gatgtacgct gtggtcaccc ccatgctgaa ccttttcatc 780
tacagcctga gaaacagga catacaaagt gccctgcgga ggctgctcag cagaacagtc 840
gaatctcatg atctgttcca tccttt 866

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<210> 61
<211> 265
<212> PRT
<213> Homo sapiens

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<400> 61
Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe
  1             5             10             15

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
      20             25             30

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
      35             40             45

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
      50             55             60

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
      65             70             75             80

Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Pro
      85             90             95

Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile
      100            105            110

Lys Asn Val Glu Ile Thr Asn Phe Val Cys Glu Pro Ser Gln Leu Leu
      115            120            125

Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe
      130            135            140

Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser

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145		150		155		160									
Tyr	Tyr	Lys	Ile	Val	Pro	Ser	Ile	Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly
			165					170						175	
Lys	Tyr	Lys	Gly	Phe	Ser	Thr	Cys	Gly	Ser	Tyr	Leu	Ala	Val	Val	Cys
			180					185						190	
Ser	Phe	Asp	Gly	Thr	Gly	Ile	Gly	Met	Tyr	Leu	Thr	Ser	Ala	Val	Ser
		195						200						205	
Pro	Pro	Pro	Arg	Asn	Gly	Val	Val	Ala	Ser	Val	Met	Tyr	Ala	Val	Val
		210					215					220			
Thr	Pro	Met	Leu	Asn	Leu	Phe	Ile	Tyr	Ser	Leu	Gly	Lys	Arg	Asp	Ile
225					230					235					240
Gln	Ser	Val	Leu	Arg	Arg	Leu	Cys	Ser	Arg	Thr	Val	Glu	Ser	His	Asp
				245					250					255	
Met	Phe	His	Pro	Phe	Ser	Cys	Val	Gly							
			260					265							

<210> 62

<211> 264

<212> PRT

<213> Homo sapiens

<400> 62

Pro	Met	Tyr	Phe	Phe	Leu	Ser	Asn	Leu	Ser	Leu	Ala	Asp	Ile	Gly	Phe
1				5					10					15	
Thr	Ser	Thr	Thr	Val	Pro	Lys	Met	Ile	Val	Asp	Met	Gln	Thr	His	Ser
			20					25					30		
Arg	Val	Ile	Ser	Tyr	Glu	Gly	Cys	Leu	Thr	Gln	Met	Ser	Phe	Phe	Val
		35					40					45			
Leu	Phe	Ala	Cys	Met	Asp	Asp	Met	Leu	Leu	Ser	Val	Met	Ala	Tyr	Asp
	50					55					60				
Arg	Phe	Val	Ala	Ile	Cys	His	Pro	Leu	His	Tyr	Arg	Ile	Ile	Met	Asn
65					70					75					80
Pro	Arg	Leu	Cys	Gly	Phe	Leu	Ile	Leu	Leu	Ser	Phe	Phe	Ile	Ser	Leu
			85					90						95	

Leu	Asp	Ser	Gln	Leu	His	Asn	Leu	Ile	Met	Leu	Gln	Leu	Thr	Cys	Phe
			100					105					110		
Lys	Asp	Val	Asp	Ile	Ser	Asn	Phe	Phe	Cys	Asp	Pro	Ser	Gln	Leu	Leu
		115					120					125			
His	Leu	Arg	Cys	Ser	Asp	Thr	Phe	Ile	Asn	Glu	Met	Val	Ile	Tyr	Phe
	130					135					140				
Met	Gly	Ala	Ile	Phe	Gly	Cys	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Phe	Ser
145					150					155					160
Tyr	Tyr	Lys	Ile	Val	Ser	Pro	Ile	Leu	Arg	Val	Pro	Thr	Ser	Asp	Gly
			165					170						175	
Lys	Tyr	Lys	Ala	Phe	Ser	Thr	Cys	Gly	Ser	His	Leu	Ala	Val	Val	Cys
			180					185					190		
Leu	Phe	Tyr	Gly	Thr	Gly	Leu	Val	Gly	Tyr	Leu	Ser	Ser	Ala	Val	Leu
		195					200					205			
Pro	Ser	Pro	Arg	Lys	Ser	Met	Val	Ala	Ser	Val	Met	Tyr	Thr	Val	Val
	210					215					220				
Thr	Pro	Met	Leu	Asn	Pro	Phe	Ile	Tyr	Ser	Leu	Arg	Asn	Lys	Asp	Ile
225					230					235					240
Gln	Ser	Ala	Leu	Cys	Arg	Leu	His	Gly	Arg	Ile	Ile	Lys	Ser	His	His
			245					250						255	
Leu	His	Pro	Phe	Cys	Tyr	Met	Gly								
			260												

<210> 63
 <211> 264
 <212> PRT
 <213> Homo sapiens

<220>
 <221> VARIANT
 <222> (85)..(99)
 <223> Wherein Xaa is any amino acid.

<400> 63
 Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe
 1 5 10 15

<210> 64
 <211> 310
 <212> PRT
 <213> Homo sapiens

<400> 64

Met Gly Asp Asn Ile Thr Ser Ile Thr Glu Phe Leu Leu Leu Gly Phe
 1 5 10 15

Pro Val Gly Pro Arg Ile Gln Met Leu Leu Phe Gly Leu Phe Ser Leu
 20 25 30

Phe Tyr Val Phe Thr Leu Leu Gly Asn Gly Thr Ile Leu Gly Leu Ile
 35 40 45

Ser Leu Asp Ser Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His
 50 55 60

Leu Ala Val Val Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met
 65 70 75 80

Leu Val Asn Leu Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg
 85 90 95

Met Met Gln Thr Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu
 100 105 110

Leu Leu Val Val Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro
 115 120 125

Leu Arg Tyr Leu Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala
 130 135 140

Val Thr Ser Trp Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val
 145 150 155 160

Leu Leu Leu Pro Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe
 165 170 175

Phe Cys Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His
 180 185 190

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly
 195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile
 210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Cys Thr Cys
 225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Phe Tyr Gly Thr Ala Ile Ile
 245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr
 260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile
 275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu
 290 295 300

Gly Val Glu Arg Ala Leu
 305 310

<210> 65

<211> 190

<212> PRT

<213> Homo sapiens

<400> 65

Asn Leu Leu Ser Ile Leu Ala Val Ser Ser Asp Ser Pro Leu His Thr
 1 5 10 15

Pro Met Cys Phe Phe Leu Ser Lys Leu Cys Ser Ala Asp Ile Gly Phe
 20 25 30

Thr Leu Ala Met Val Pro Lys Met Ile Val Asn Met Gln Ser His Ser
 35 40 45

Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Arg Met Ser Phe Phe Val
 50 55 60

Leu Phe Ala Cys Met Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp
 65 70 75 80

Cys Phe Val Ala Ile Cys Arg Pro Leu His Tyr Pro Val Ile Val Asn
 85 90 95

Pro His Leu Cys Val Phe Phe Val Leu Val Ser Phe Phe Leu Ser Pro
 100 105 110

Leu Asp Ser Gln Leu His Ser Trp Ile Val Leu Leu Phe Thr Ile Ile

115	120	125
Lys Asn Val Glu Ile Thr	Asn Phe Val Cys Glu Pro Ser Gln Leu Leu	
130	135	140
Asn Leu Ala Cys Ser Asp Ser Val Ile Asn Asn Ile Phe Ile Tyr Phe		
145	150	155 160
Asp Ser Thr Met Phe Gly Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser		
	165	170 175
Tyr Tyr Lys Ile Val Pro Ser Ile Leu Arg Met Ser Ser Ser		
	180	185 190

<210> 66
 <211> 171
 <212> PRT
 <213> Homo sapiens

<400> 66

Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln Thr
1 5 10 15
Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val
20 25 30
Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu
35 40 45
Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val
50 55 60
Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp
65 70 75 80
Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser
85 90 95
Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu Ser
100 105 110
Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp Gln
115 120 125
Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser Ile
130 135 140

Val	Ser	Phe	Tyr	Val	Pro	Phe	Ile	Val	Thr	Leu	Leu	Val	Tyr	Ile	Lys
145					150					155					160

Ile	Tyr	Ile	Val	Leu	Arg	Arg	Arg	Arg	Lys	Arg
				165					170	

<210> 67

<211> 310

<212> PRT

<213> Homo sapiens

<400> 67

Met	Gly	Asp	Asn	Ile	Thr	Ser	Ile	Arg	Glu	Phe	Leu	Leu	Leu	Gly	Phe
1				5					10					15	

Pro	Val	Gly	Pro	Arg	Ile	Gln	Met	Leu	Leu	Phe	Gly	Leu	Phe	Ser	Leu
			20					25						30	

Phe	Tyr	Val	Phe	Thr	Leu	Leu	Gly	Asn	Gly	Thr	Ile	Leu	Gly	Leu	Ile
		35					40					45			

Ser	Leu	Asp	Ser	Arg	Leu	His	Ala	Pro	Met	Tyr	Phe	Phe	Leu	Ser	His
	50					55					60				

Leu	Ala	Val	Val	Asp	Ile	Ala	Tyr	Ala	Cys	Asn	Thr	Val	Pro	Arg	Met
65					70					75					80

Leu	Val	Asn	Leu	Leu	His	Pro	Ala	Lys	Pro	Ile	Ser	Phe	Ala	Gly	Arg
				85					90						95

Met	Met	Gln	Thr	Phe	Leu	Phe	Ser	Thr	Phe	Ala	Val	Thr	Glu	Cys	Leu
			100					105						110	

Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Leu	Tyr	Val	Ala	Ile	Cys	His	Pro
		115					120					125			

Leu	Arg	Tyr	Leu	Ala	Ile	Met	Thr	Trp	Arg	Val	Cys	Ile	Thr	Leu	Ala
	130					135					140				

Val	Thr	Ser	Trp	Thr	Thr	Gly	Val	Leu	Leu	Ser	Leu	Ile	His	Leu	Val
145					150					155					160

Leu	Leu	Leu	Pro	Leu	Pro	Phe	Cys	Arg	Pro	Gln	Lys	Ile	Tyr	His	Phe
			165						170					175	

Phe	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	His
		180						185					190		

Ile Asn Glu Asn Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly
 195 200 205

Pro Leu Ser Thr Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile
 210 215 220

Leu Gln Ile Gln Ser Arg Glu Val Gln Arg Lys Ala Phe Arg Thr Cys
 225 230 235 240

Phe Ser His Leu Cys Val Ile Gly Leu Val Tyr Gly Thr Ala Ile Ile
 245 250 255

Met Tyr Val Gly Pro Arg Tyr Gly Asn Pro Lys Glu Gln Lys Lys Tyr
 260 265 270

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile
 275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu
 290 295 300

Gly Val Glu Arg Ala Leu
 305 310

<210> 68
 <211> 930
 <212> DNA
 <213> Homo sapiens

<400> 68
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 tccagaactg cagtcgggtcc tcgcttttgc gtccctgtcc ctgtccctga atctgggtcac 120
 ggtgctgagg aacctgctca gcaccttggc tgtcagctct gactcccccc tccacacccc 180
 catgtacttc ttcctctcca acctgtgctg ggctgacatc ggtctcacct cggccacggg 240
 tcccaagggtg attctggata tgcagtcgca tagcagagtc atctctcatg tgggctgcct 300
 gacacagatg tctttcttgg tcctttttgc atgtatagaa ggcattgctcc tgactgtgat 360
 ggcctatggc tgctttgtag ccatctgtcg cctctgcac taccagtc tagtgaatcc 420
 tcacctctgt gtcttcttcg ttttgggtgc ctttttcctt aacctgttgg attcccagct 480
 gcacagttgg attgtgttac aattcaccat catcaagaat gtggaaatct ctaatttttt 540
 ctgtgacccc tctcagcttc tcaaccttgc ctgttctgac agcgtcatca atagcatatt 600
 catatatatt gatagtacta tggttggttt tcttcccatt tcagggatcc ttttgtctta 660
 ctataaaatt gtccctcca ttctaaggat gtcacgtca gatgggaagt ataaagcctt 720
 ctccacctat ggctctcacc taggagttgt ttgctgggtt tatggaacag tcattggcat 780
 gtacctggct tcagccgtgt caccacccc caggaatggg gtgggtggcat cagtgatgta 840
 ggctgtggtc acccccatgc tgaacctttt catctacagc ctgagaaaca gggacataca 900
 aagtgcctg cggaggctgc gcagcagaac 930

<210> 69
 <211> 249
 <212> PRT
 <213> Homo sapiens

<400> 69

Pro	Thr	Tyr	Phe	Phe	Leu	Ser	Ile	Leu	Cys	Trp	Ala	Asp	Ile	Gly	Phe
1				5					10					15	
Thr	Ser	Ala	Thr	Val	Pro	Lys	Met	Ile	Val	Asp	Met	Gln	Trp	Tyr	Ser
			20					25						30	
Arg	Val	Ile	Ser	His	Ala	Gly	Cys	Leu	Thr	Gln	Met	Ser	Phe	Leu	Val
		35					40					45			
Leu	Phe	Ala	Cys	Ile	Glu	Gly	Met	Leu	Leu	Thr	Val	Met	Ala	Tyr	Asp
	50					55					60				
Cys	Phe	Val	Gly	Ile	Tyr	Arg	Pro	Leu	His	Tyr	Pro	Val	Ile	Val	Asn
65					70					75					80
Pro	His	Leu	Cys	Val	Phe	Phe	Val	Leu	Val	Ser	Phe	Phe	Leu	Ser	Leu
				85					90					95	
Leu	Asp	Ser	Gln	Leu	His	Ser	Trp	Ile	Val	Leu	Gln	Phe	Thr	Ile	Ile
			100					105					110		
Lys	Asn	Val	Glu	Ile	Ser	Asn	Phe	Val	Cys	Asp	Pro	Ser	Gln	Leu	Leu
		115					120					125			
Lys	Leu	Ala	Ser	Tyr	Asp	Ser	Val	Ile	Asn	Ser	Ile	Phe	Ile	Tyr	Phe
	130					135					140				
Asp	Ser	Thr	Met	Phe	Gly	Phe	Leu	Pro	Ile	Ser	Gly	Ile	Leu	Ser	Ser
145					150					155				160	
Tyr	Tyr	Lys	Ile	Val	Pro	Ser	Ile	Leu	Arg	Met	Ser	Ser	Ser	Asp	Gly
			165					170						175	
Lys	Tyr	Lys	Thr	Phe	Ser	Thr	Tyr	Gly	Ser	His	Leu	Ala	Phe	Val	Cys
			180					185					190		
Ser	Phe	Tyr	Gly	Thr	Gly	Ile	Asp	Met	Tyr	Leu	Ala	Ser	Ala	Met	Ser
		195					200					205			
Pro	Thr	Pro	Arg	Asn	Gly	Val	Val	Val	Ser	Val	Met	Ala	Val	Val	Thr

210	215	220
Pro Met Leu Asn Leu Phe Ile Tyr Ser Leu Arg Asn Arg Asp Ile Gln		
225	230	235 240
Ser Ala Leu Arg Arg Leu Arg Ser Arg		
245		
<210> 70		
<211> 250		
<212> PRT		
<213> Homo sapiens		
<400> 70		
Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe		
1	5	10 15
Thr Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser		
20	25	30
Arg Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val		
35	40	45
Leu Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp		
50	55	60
Arg Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn		
65	70	75 80
Pro Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu		
85	90	95
Leu Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe		
100	105	110
Lys Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu		
115	120	125
His Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe		
130	135	140
Met Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser		
145	150	155 160
Tyr Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly		
165	170	175

Lys Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys
180 185 190

Leu Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu
195 200 205

Pro Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val
210 215 220

Thr Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile
225 230 235 240

Gln Ser Ala Leu Cys Arg Leu His Gly Arg
245 250

<210> 71
<211> 98
<212> PRT
<213> Homo sapiens

<400> 71
Asn Leu Leu Ser Ile Pro Ala Val Ser Ser Asp Ser His Leu His Thr
1 5 10 15

Pro Thr Tyr Phe Phe Leu Ser Ile Leu Cys Trp Ala Asp Ile Gly Phe
20 25 30

Thr Ser Ala Thr Val Pro Lys Met Ile Val Asp Met Gln Trp Tyr Ser
35 40 45

Arg Val Ile Ser His Ala Gly Cys Leu Thr Gln Met Ser Phe Leu Val
50 55 60

Leu Phe Ala Cys Ile Glu Gly Met Leu Leu Thr Val Met Ala Tyr Asp
65 70 75 80

Cys Phe Val Gly Ile Tyr Arg Pro Leu His Tyr Pro Val Ile Val Asn
85 90 95

Pro His

<210> 72
<211> 98
<212> PRT
<213> Homo sapiens

<400> 72

Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln Thr
1 5 10 15

Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val
20 25 30

Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu
35 40 45

Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val
50 55 60

Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp
65 70 75 80

Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser
85 90 95

Ser Lys

<210> 73

<211> 305

<212> PRT

<213> Homo sapiens

<400> 73

Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly
1 5 10 15

Leu Phe Ser His Ser Gly Ser Arg Gln Leu Leu Phe Ser Leu Val Ala
20 25 30

Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu
35 40 45

Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser
50 55 60

Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys
65 70 75 80

Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly
85 90 95

Gly	Ala	Ala	Gln	Ile	Phe	Phe	Leu	Thr	Leu	Met	Gly	Val	Ala	Glu	Gly			
			100					105					110					
Val	Leu	Leu	Val	Leu	Met	Ser	Tyr	Asp	Arg	Tyr	Val	Ala	Val	Cys	Gln			
			115				120					125						
Pro	Leu	Gln	Tyr	Pro	Val	Leu	Met	Arg	Arg	Gln	Val	Cys	Leu	Leu	Met			
			130				135				140							
Met	Gly	Ser	Ser	Trp	Val	Val	Gly	Val	Leu	Asn	Ala	Ser	Ile	Gln	Thr			
145					150					155					160			
Ser	Ile	Thr	Leu	His	Phe	Pro	Tyr	Cys	Ala	Ser	Arg	Ile	Val	Asp	His			
				165					170					175				
Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ala	Asp	Thr			
			180					185					190					
Cys	Ala	Tyr	Glu	Met	Ala	Leu	Ser	Thr	Ser	Gly	Val	Leu	Ile	Leu	Met			
			195				200					205						
Leu	Pro	Leu	Ser	Leu	Ile	Ala	Thr	Ser	Tyr	Gly	His	Val	Leu	Gln	Ala			
			210			215					220							
Val	Leu	Ser	Met	Arg	Ser	Glu	Glu	Ala	Arg	His	Lys	Ala	Val	Thr	Thr			
225					230					235					240			
Cys	Ser	Ser	His	Ile	Thr	Val	Val	Gly	Leu	Phe	Tyr	Gly	Ala	Ala	Val			
				245					250					255				
Phe	Met	Tyr	Met	Val	Pro	Cys	Ala	Tyr	His	Ser	Pro	Gln	Gln	Asp	Asn			
				260				265					270					
Val	Val	Ser	Leu	Phe	Tyr	Ser	Leu	Val	Thr	Pro	Thr	Leu	Asn	Pro	Leu			
			275				280					285						
Ile	Tyr	Ser	Leu	Arg	Asn	Pro	Glu	Val	Trp	Met	Ala	Leu	Val	Lys	Val			
			290			295				300								
Leu																		
305																		

<210> 74

<211> 305

<212> PRT

<213> Homo sapiens

<400> 74

Met Gly Thr Asp Asn Gln Thr Trp Val Ser Glu Phe Ile Leu Leu Gly
1 5 10 15

Leu Ser Ser Asp Trp Asp Thr Arg Val Ser Leu Phe Val Leu Phe Leu
20 25 30

Val Met Tyr Val Val Thr Val Leu Gly Asn Cys Leu Ile Val Leu Leu
35 40 45

Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr
50 55 60

Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Val Val Pro Gln
65 70 75 80

Leu Leu Ala His Phe Leu Ala Glu His Lys Ala Ile Pro Phe Gln Ser
85 90 95

Cys Ala Ala Gln Leu Phe Phe Ser Leu Ala Leu Gly Gly Ile Glu Phe
100 105 110

Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp
115 120 125

Ala Leu Arg Tyr Ser Ala Ile Met His Gly Gly Leu Cys Ala Arg Leu
130 135 140

Ala Ile Thr Ser Trp Val Ser Gly Phe Ile Ser Ser Pro Val Gln Thr
145 150 155 160

Ala Ile Thr Phe Gln Leu Pro Met Cys Arg Asn Lys Phe Ile Asp His
165 170 175

Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr
180 185 190

Ser Ser Asn Glu Val Thr Ile Met Val Ser Ser Ile Val Leu Leu Met
195 200 205

Thr Pro Leu Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr
210 215 220

Ile Leu Lys Ile Gln Ser Arg Glu Gly Arg Lys Lys Ala Phe His Thr
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Ala Leu Cys Tyr Gly Val Ala Ile
245 250 255

Phe Thr Tyr Ile Gln Pro His Ser Ser Pro Ser Val Leu Gln Glu Lys
260 265 270

Leu Phe Ser Val Phe Tyr Ala Ile Leu Thr Pro Met Leu Asn Pro Met
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu
290 295 300

Leu
305

<210> 75
<211> 305
<212> PRT
<213> Homo sapiens

<400> 75
Met Gly Asp Val Asn Gln Ser Val Ala Ser Asp Phe Ile Leu Val Gly
1 5 10 15

Leu Phe Ser His Ser Gly Ser Arg Gln Leu Leu Phe Ser Leu Val Ala
20 25 30

Val Met Phe Val Ile Gly Leu Leu Gly Asn Thr Val Leu Leu Phe Leu
35 40 45

Ile Arg Val Asp Ser Arg Leu His Thr Pro Met Tyr Phe Leu Leu Ser
50 55 60

Gln Leu Ser Leu Phe Asp Ile Gly Cys Pro Met Val Thr Ile Pro Lys
65 70 75 80

Met Ala Ser Asp Phe Leu Arg Gly Glu Gly Ala Thr Ser Tyr Gly Gly
85 90 95

Gly Ala Ala Gln Ile Phe Phe Leu Thr Leu Met Gly Val Ala Glu Gly
100 105 110

Val Leu Leu Val Leu Met Ser Tyr Asp Arg Tyr Val Ala Val Cys Gln
115 120 125

Pro Leu Gln Tyr Pro Val Leu Met Arg Arg Gln Val Cys Leu Leu Met
130 135 140

Met Gly Ser Ser Trp Val Val Gly Val Leu Asn Ala Ser Ile Gln Thr

145		150		155		160									
Ser	Ile	Thr	Leu	His	Phe	Pro	Tyr	Cys	Ala	Ser	Arg	Ile	Val	Asp	His
				165					170					175	
Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ala	Asp	Thr
			180					185					190		
Cys	Ala	Tyr	Glu	Met	Ala	Leu	Ser	Thr	Ser	Gly	Val	Leu	Ile	Leu	Met
	195						200					205			
Leu	Pro	Leu	Ser	Leu	Ile	Ala	Thr	Ser	Tyr	Gly	His	Val	Leu	Gln	Ala
	210					215					220				
Val	Leu	Ser	Met	Arg	Ser	Glu	Glu	Ala	Arg	His	Lys	Ala	Val	Thr	Thr
225				230					235					240	
Cys	Ser	Ser	His	Ile	Thr	Val	Val	Gly	Leu	Phe	Tyr	Gly	Ala	Ala	Val
			245					250					255		
Phe	Met	Tyr	Met	Val	Pro	Cys	Ala	Tyr	His	Ser	Pro	Gln	Gln	Asp	Asn
			260					265					270		
Val	Val	Ser	Leu	Phe	Tyr	Ser	Leu	Val	Thr	Pro	Thr	Leu	Asn	Pro	Leu
	275						280					285			
Ile	Tyr	Ser	Leu	Arg	Asn	Pro	Glu	Val	Trp	Met	Ala	Leu	Val	Lys	Val
	290				295					300					
Leu															
305															

<210> 76
 <211> 311
 <212> PRT
 <213> Homo sapiens

<400> 76
 Met Gly Thr Asp Asn Gln Thr Trp Val Ser Glu Phe Ile Leu Leu Gly
 1 5 10 15
 Leu Ser Ser Asp Trp Asp Thr Arg Val Ser Leu Phe Val Leu Phe Leu
 20 25 30
 Val Met Tyr Val Val Thr Val Leu Gly Asn Cys Leu Ile Val Leu Leu
 35 40 45

Leu Trp Lys Phe Ser Gly Leu
305 310

<210> 77

<211> 193

<212> PRT

<213> Homo sapiens

<400> 77

Gly Asn Thr Val Leu Leu Phe Leu Ile Arg Val Asp Ser Arg Leu His
1 5 10 15

Thr Pro Met Tyr Phe Leu Leu Ser Gln Leu Ser Leu Phe Asp Ile Gly
20 25 30

Cys Pro Met Val Thr Ile Pro Lys Met Ala Ser Asp Phe Leu Arg Gly
35 40 45

Glu Gly Ala Thr Ser Tyr Gly Gly Gly Ala Ala Gln Ile Phe Phe Leu
50 55 60

Thr Leu Met Gly Val Ala Glu Gly Val Leu Leu Val Leu Met Ser Tyr
65 70 75 80

Asp Arg Tyr Val Ala Val Cys Gln Pro Leu Gln Tyr Pro Val Leu Met
85 90 95

Arg Arg Gln Val Cys Leu Leu Met Met Gly Ser Ser Trp Val Val Gly
100 105 110

Val Leu Asn Ala Ser Ile Gln Thr Ser Ile Thr Leu His Phe Pro Tyr
115 120 125

Cys Ala Ser Arg Ile Val Asp His Phe Phe Cys Glu Val Pro Ala Leu
130 135 140

Leu Lys Leu Ser Cys Ala Asp Thr Cys Ala Tyr Glu Met Ala Leu Ser
145 150 155 160

Thr Ser Gly Val Leu Ile Leu Met Leu Pro Leu Ser Leu Ile Ala Thr
165 170 175

Ser Tyr Gly His Val Leu Gln Ala Val Leu Ser Met Arg Ser Glu Glu
180 185 190

Ala

<210> 78
 <211> 174
 <212> PRT
 <213> Homo sapiens

<400> 78
 Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln
 1 5 10 15
 Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu
 20 25 30
 Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly
 35 40 45
 Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp
 50 55 60
 Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile
 65 70 75 80
 Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr
 85 90 95
 Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu
 100 105 110
 Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp
 115 120 125
 Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser
 130 135 140
 Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile
 145 150 155 160
 Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn
 165 170

<210> 79
 <211> 305
 <212> PRT
 <213> Homo sapiens

<400> 79

Met	Gly	Asp	Val	Asn	Gln	Ser	Val	Ala	Ser	Asp	Phe	Ile	Leu	Val	Gly	1	5	10	15
Leu	Phe	Ser	His	Ser	Gly	Ser	Arg	Gln	Leu	Leu	Phe	Ser	Leu	Val	Ala	20	25	30	
Val	Met	Phe	Val	Ile	Gly	Leu	Leu	Gly	Asn	Thr	Val	Leu	Leu	Phe	Leu	35	40	45	
Ile	Arg	Val	Asp	Ser	Arg	Leu	His	Thr	Pro	Met	Tyr	Phe	Leu	Leu	Ser	50	55	60	
Gln	Leu	Ser	Leu	Phe	Asp	Ile	Gly	Cys	Pro	Met	Val	Thr	Ile	Pro	Lys	65	70	75	80
Met	Ala	Ser	Asp	Phe	Leu	Arg	Gly	Glu	Gly	Ala	Thr	Ser	Tyr	Gly	Gly	85	90	95	
Gly	Ala	Ala	Gln	Ile	Phe	Phe	Leu	Thr	Leu	Met	Gly	Val	Ala	Glu	Gly	100	105	110	
Val	Leu	Leu	Val	Leu	Met	Ser	Tyr	Asp	Arg	Tyr	Val	Ala	Val	Cys	Gln	115	120	125	
Pro	Leu	Gln	Tyr	Pro	Val	Leu	Met	Arg	Arg	Gln	Val	Cys	Leu	Leu	Met	130	135	140	
Met	Gly	Ser	Ser	Trp	Val	Val	Gly	Val	Leu	Asn	Ala	Ser	Ile	Gln	Thr	145	150	155	160
Ser	Ile	Thr	Leu	His	Phe	Pro	Tyr	Cys	Ala	Ser	Arg	Ile	Val	Asp	His	165	170	175	
Phe	Phe	Cys	Glu	Val	Pro	Ala	Leu	Leu	Lys	Leu	Ser	Cys	Ala	Asp	Thr	180	185	190	
Cys	Ala	Tyr	Glu	Met	Ala	Leu	Ser	Thr	Ser	Gly	Val	Leu	Ile	Leu	Met	195	200	205	
Leu	Pro	Leu	Ser	Leu	Ile	Ala	Thr	Ser	Tyr	Gly	His	Val	Leu	Gln	Ala	210	215	220	
Val	Leu	Ser	Met	Arg	Ser	Glu	Glu	Ala	Arg	His	Lys	Ala	Val	Thr	Thr	225	230	235	240
Cys	Ser	Ser	His	Ile	Thr	Val	Val	Gly	Leu	Phe	Tyr	Gly	Ala	Ala	Val	245	250	255	

Phe Met Tyr Met Val Pro Cys Ala Tyr His Ser Pro Gln Gln Asp Asn
 260 265 270

Val Val Ser Leu Phe Tyr Ser Leu Val Thr Pro Thr Leu Asn Pro Leu
 275 280 285

Ile Tyr Ser Leu Arg Asn Pro Glu Val Trp Met Ala Leu Val Lys Val
 290 295 300

Leu
 305

<210> 80
 <211> 305
 <212> PRT
 <213> Homo sapiens

<400> 80
 Met Gly Thr Asp Asn Gln Thr Trp Val Ser Glu Phe Ile Leu Leu Gly
 1 5 10 15

Leu Ser Ser Asp Trp Asp Thr Arg Val Ser Leu Phe Val Leu Phe Leu
 20 25 30

Val Met Tyr Val Val Thr Val Leu Gly Asn Cys Leu Ile Val Leu Leu
 35 40 45

Ile Arg Leu Asp Ser Arg Leu His Thr Pro Met Tyr Phe Phe Leu Thr
 50 55 60

Asn Leu Ser Leu Val Asp Val Ser Tyr Ala Thr Ser Val Val Pro Gln
 65 70 75 80

Leu Leu Ala His Phe Leu Ala Glu His Lys Ala Ile Pro Phe Gln Ser
 85 90 95

Cys Ala Ala Gln Leu Phe Phe Ser Leu Ala Leu Gly Gly Ile Glu Phe
 100 105 110

Val Leu Leu Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Val Cys Asp
 115 120 125

Ala Leu Arg Tyr Ser Ala Ile Met His Gly Gly Leu Cys Ala Arg Leu
 130 135 140

Ala Ile Thr Ser Trp Val Ser Gly Phe Ile Ser Ser Pro Val Gln Thr
 145 150 155 160

Ala Ile Thr Phe Gln Leu Pro Met Cys Arg Asn Lys Phe Ile Asp His
165 170 175

Ile Ser Cys Glu Leu Leu Ala Val Val Arg Leu Ala Cys Val Asp Thr
180 185 190

Ser Ser Asn Glu Val Thr Ile Met Val Ser Ser Ile Val Leu Leu Met
195 200 205

Thr Pro Leu Cys Leu Val Leu Leu Ser Tyr Ile Gln Ile Ile Ser Thr
210 215 220

Ile Leu Lys Ile Gln Ser Arg Glu Gly Arg Lys Lys Ala Phe His Thr
225 230 235 240

Cys Ala Ser His Leu Thr Val Val Ala Leu Cys Tyr Gly Val Ala Ile
245 250 255

Phe Thr Tyr Ile Gln Pro His Ser Ser Pro Ser Val Leu Gln Glu Lys
260 265 270

Leu Phe Ser Val Phe Tyr Ala Ile Leu Thr Pro Met Leu Asn Pro Met
275 280 285

Ile Tyr Ser Leu Arg Asn Lys Glu Val Lys Gly Ala Trp Gln Lys Leu
290 295 300

Leu
305

<210> 81
<211> 183
<212> PRT
<213> Homo sapiens

<400> 81
Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val
1 5 10 15

Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu
20 25 30

Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr
35 40 45

Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu Val Val

50		55		60											
Met	Ser	Tyr	Asp	Leu	Tyr	Val	Ala	Ile	Cys	His	Pro	Leu	Arg	Tyr	Leu
65					70				75					80	
Ala	Ile	Met	Thr	Trp	Arg	Val	Cys	Ile	Thr	Leu	Ala	Val	Thr	Ser	Trp
			85					90					95		
Thr	Thr	Gly	Val	Leu	Leu	Ser	Leu	Ile	His	Leu	Val	Leu	Leu	Leu	Pro
		100					105					110			
Leu	Pro	Phe	Cys	Arg	Pro	Gln	Lys	Ile	Tyr	His	Phe	Phe	Cys	Glu	Ile
	115					120					125				
Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	His	Ile	Asn	Glu	Asn
	130					135					140				
Met	Val	Leu	Ala	Gly	Ala	Ile	Ser	Gly	Leu	Val	Gly	Pro	Leu	Ser	Thr
145				150					155					160	
Ile	Val	Val	Ser	Tyr	Met	Cys	Ile	Leu	Cys	Ala	Ile	Leu	Gln	Ile	Gln
			165					170					175		
Ser	Arg	Glu	Val	Gln	Arg	Lys									
		180													

<210> 82
 <211> 164
 <212> PRT
 <213> Homo sapiens

<400> 82
Ala Leu Gln Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala
1 5 10 15
Asp Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu
20 25 30
Val Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val
35 40 45
Thr Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala
50 55 60
Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn
65 70 75 80

Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val
 85 90 95
 Trp Val Leu Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn
 100 105 110
 Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val
 115 120 125
 Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu
 130 135 140
 Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val
 145 150 155 160
 Asn Thr Lys Arg

<210> 83
 <211> 193
 <212> PRT
 <213> Homo sapiens

<400> 83
 Gly Asn Thr Val Leu Leu Phe Leu Ile Arg Val Asp Ser Arg Leu His
 1 5 10 15
 Thr Pro Met Tyr Phe Leu Leu Ser Gln Leu Ser Leu Phe Asp Ile Gly
 20 25 30
 Cys Pro Met Val Thr Ile Pro Lys Met Ala Ser Asp Phe Leu Arg Gly
 35 40 45
 Glu Gly Ala Thr Ser Tyr Gly Gly Gly Ala Ala Gln Ile Phe Phe Leu
 50 55 60
 Thr Leu Met Gly Val Ala Glu Gly Val Leu Leu Val Leu Met Ser Tyr
 65 70 75 80
 Asp Arg Tyr Val Ala Val Cys Gln Pro Leu Gln Tyr Pro Val Leu Met
 85 90 95
 Arg Arg Gln Val Cys Leu Leu Met Met Gly Ser Ser Trp Val Val Gly
 100 105 110
 Val Leu Asn Ala Ser Ile Gln Thr Ser Ile Thr Leu His Phe Pro Tyr
 115 120 125

Cys Ala Ser Arg Ile Val Asp His Phe Phe Cys Glu Val Pro Ala Leu
130 135 140

Leu Lys Leu Ser Cys Ala Asp Thr Cys Ala Tyr Glu Met Ala Leu Ser
145 150 155 160

Thr Ser Gly Val Leu Ile Leu Met Leu Pro Leu Ser Leu Ile Ala Thr
165 170 175

Ser Tyr Gly His Val Leu Gln Ala Val Leu Ser Met Arg Ser Glu Glu
180 185 190

Ala

<210> 84
<211> 174
<212> PRT
<213> Homo sapiens

<400> 84
Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln
1 5 10 15

Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu
20 25 30

Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly
35 40 45

Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp
50 55 60

Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile
65 70 75 80

Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr
85 90 95

Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu
100 105 110

Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp
115 120 125

Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser

130	135	140
Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile		
145	150	155 160
Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn		
	165	170
<210> 85		
<211> 305		
<212> PRT		
<213> Homo sapiens		
<400> 85		
Met Asn Pro Ala Asn His Ser Gln Val Ala Gly Phe Val Leu Leu Gly		
1	5	10 15
Leu Ser Gln Val Trp Glu Leu Arg Phe Val Phe Phe Thr Val Phe Ser		
	20	25 30
Ala Val Tyr Phe Met Thr Val Val Gly Asn Leu Leu Ile Val Val Ile		
	35	40 45
Val Thr Ser Asp Pro His Leu His Thr Thr Met Tyr Phe Leu Leu Gly		
	50	55 60
Asn Leu Ser Phe Leu Asp Phe Cys Tyr Ser Ser Ile Thr Ala Pro Arg		
65	70	75 80
Met Leu Val Asp Leu Leu Ser Gly Asn Pro Thr Ile Ser Phe Gly Gly		
	85	90 95
Cys Leu Thr Gln Leu Phe Phe Phe His Phe Ile Gly Gly Ile Lys Ile		
	100	105 110
Phe Leu Leu Thr Val Met Ala Tyr Asp Arg Tyr Ile Ala Ile Ser Gln		
	115	120 125
Pro Leu His Tyr Thr Leu Ile Met Asn Gln Thr Val Cys Ala Leu Leu		
	130	135 140
Met Ala Ala Ser Trp Val Gly Gly Phe Ile His Ser Ile Val Gln Ile		
145	150	155 160
Ala Leu Thr Ile Gln Leu Pro Phe Cys Gly Pro Asp Lys Leu Asp Asn		
	165	170 175

Phe Tyr Cys Asp Val Pro Gln Leu Ile Lys Leu Ala Cys Thr Asp Thr
 180 185 190

Phe Val Leu Glu Leu Leu Met Val Ser Asn Asn Gly Leu Val Thr Leu
 195 200 205

Met Cys Phe Leu Val Leu Leu Gly Ser Tyr Thr Ala Leu Leu Val Met
 210 215 220

Leu Arg Ser His Ser Arg Glu Gly Arg Ser Lys Ala Leu Ser Thr Cys
 225 230 235 240

Ala Ser His Ile Ala Val Val Thr Leu Ile Phe Val Pro Cys Ile Tyr
 245 250 255

Val Tyr Thr Arg Pro Phe Arg Thr Phe Pro Met Asp Lys Ala Val Ser
 260 265 270

Val Leu Tyr Thr Ile Val Thr Pro Met Leu Asn Pro Ala Ile Tyr Thr
 275 280 285

Leu Arg Asn Lys Glu Val Ile Met Ala Met Lys Lys Leu Trp Arg Arg
 290 295 300

Lys
 305

<210> 86
 <211> 305
 <212> PRT
 <213> Homo sapiens

<400> 86
 Met Gly Ala Leu Asn Gln Thr Arg Val Thr Glu Phe Ile Phe Leu Gly
 1 5 10 15

Leu Thr Asp Asn Trp Val Leu Glu Ile Leu Phe Phe Val Pro Phe Thr
 20 25 30

Val Thr Tyr Met Leu Thr Leu Leu Gly Asn Phe Leu Ile Val Val Thr
 35 40 45

Ile Val Phe Thr Pro Arg Leu His Asn Pro Met Tyr Phe Phe Leu Ser
 50 55 60

Asn Leu Ser Phe Ile Asp Ile Cys His Ser Ser Val Thr Val Pro Lys
 65 70 75 80

Met Leu Glu Gly Leu Leu Leu Glu Arg Lys Thr Ile Ser Phe Asp Asn
85 90 95

Cys Ile Ala Gln Leu Phe Phe Leu His Leu Phe Ala Cys Ser Glu Ile
100 105 110

Phe Leu Leu Thr Ile Met Ala Tyr Asp Arg Tyr Val Ala Ile Cys Ile
115 120 125

Pro Leu His Tyr Ser Asn Val Met Asn Met Lys Val Cys Val Gln Leu
130 135 140

Val Phe Ala Leu Trp Leu Gly Gly Thr Ile His Ser Leu Val Gln Thr
145 150 155 160

Phe Leu Thr Ile Arg Leu Pro Tyr Cys Gly Pro Asn Ile Ile Asp Ser
165 170 175

Tyr Phe Cys Asp Val Pro Pro Val Ile Lys Leu Ala Cys Thr Asp Thr
180 185 190

Tyr Leu Thr Gly Ile Leu Ile Val Ser Asn Ser Gly Thr Ile Ser Leu
195 200 205

Val Cys Phe Leu Ala Leu Val Thr Ser Tyr Thr Val Ile Leu Phe Ser
210 215 220

Leu Arg Lys Lys Ser Ala Glu Gly Arg Arg Lys Ala Leu Ser Thr Cys
225 230 235 240

Ser Ala His Phe Met Val Val Thr Leu Phe Phe Gly Pro Cys Ile Phe
245 250 255

Leu Tyr Thr Arg Pro Asp Ser Ser Phe Ser Ile Asp Lys Val Val Ser
260 265 270

Val Phe Tyr Thr Val Val Thr Pro Leu Leu Asn Pro Leu Ile Tyr Thr
275 280 285

Leu Arg Asn Glu Glu Val Lys Thr Ala Met Lys His Leu Arg Gln Arg
290 295 300

Arg
305

<210> 87

<211> 196

<212> PRT

<213> Homo sapiens

<400> 87

Gly Asn Leu Leu Ile Val Val Ile Val Thr Ser Asp Pro His Leu His
1 5 10 15

Thr Thr Met Tyr Phe Leu Leu Gly Asn Leu Ser Phe Leu Asp Phe Cys
20 25 30

Tyr Ser Ser Ile Thr Ala Pro Arg Met Leu Val Asp Leu Leu Ser Gly
35 40 45

Asn Pro Thr Ile Ser Phe Gly Gly Cys Leu Thr Gln Leu Phe Phe Phe
50 55 60

His Phe Ile Gly Gly Ile Lys Ile Phe Leu Leu Thr Val Met Ala Tyr
65 70 75 80

Asp Arg Tyr Ile Ala Ile Ser Gln Pro Leu His Tyr Thr Leu Ile Met
85 90 95

Asn Gln Thr Val Cys Ala Leu Leu Met Ala Ala Ser Trp Val Gly Gly
100 105 110

Phe Ile His Ser Ile Val Gln Ile Ala Leu Thr Ile Gln Leu Pro Phe
115 120 125

Cys Gly Pro Asp Lys Leu Asp Asn Phe Tyr Cys Asp Val Pro Gln Leu
130 135 140

Ile Lys Leu Ala Cys Thr Asp Thr Phe Val Leu Glu Leu Leu Met Val
145 150 155 160

Ser Asn Asn Gly Leu Val Thr Leu Met Cys Phe Leu Val Leu Leu Gly
165 170 175

Ser Tyr Thr Ala Leu Leu Val Met Leu Arg Ser His Ser Arg Glu Gly
180 185 190

Arg Ser Lys Ala
195

<210> 88

<211> 177

<212> PRT

<213> Homo sapiens

<400> 88

Gly Asn Val Leu Val Cys Met Ala Val Ser Arg Glu Lys Ala Leu Gln
1 5 10 15

Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu
20 25 30

Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly
35 40 45

Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp
50 55 60

Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile
65 70 75 80

Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr
85 90 95

Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu
100 105 110

Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp
115 120 125

Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser
130 135 140

Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile
145 150 155 160

Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val Asn Thr Lys
165 170 175

Arg

<210> 89

<211> 310

<212> PRT

<213> Homo sapiens

<400> 89

Met Gly Asp Asn Ile Thr Ser Ile Arg Glu Phe Leu Leu Leu Gly Phe
1 5 10 15

Pro	Val	Gly	Pro	Arg	Ile	Gln	Met	Leu	Leu	Phe	Gly	Leu	Phe	Ser	Leu	
			20					25						30		
Phe	Tyr	Val	Phe	Thr	Leu	Leu	Gly	Asn	Gly	Thr	Ile	Leu	Gly	Leu	Ile	
		35					40					45				
Ser	Leu	Asp	Ser	Arg	Leu	His	Ala	Pro	Met	Tyr	Phe	Phe	Leu	Ser	His	
		50				55					60					
Leu	Ala	Val	Val	Asp	Ile	Ala	Tyr	Ala	Cys	Asn	Thr	Val	Pro	Arg	Met	
65					70					75					80	
Leu	Val	Asn	Leu	Leu	His	Pro	Ala	Lys	Pro	Ile	Ser	Phe	Ala	Gly	Arg	
				85					90					95		
Met	Met	Gln	Thr	Phe	Leu	Phe	Ser	Thr	Phe	Ala	Val	Thr	Glu	Cys	Leu	
			100					105					110			
Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Leu	Tyr	Val	Ala	Ile	Cys	His	Pro	
		115					120					125				
Leu	Arg	Tyr	Leu	Ala	Ile	Met	Thr	Trp	Arg	Val	Cys	Ile	Thr	Leu	Ala	
	130					135					140					
Val	Thr	Ser	Trp	Thr	Thr	Gly	Val	Leu	Leu	Ser	Leu	Ile	His	Leu	Val	
145					150					155					160	
Leu	Leu	Leu	Pro	Leu	Pro	Phe	Cys	Arg	Pro	Gln	Lys	Ile	Tyr	His	Phe	
				165					170					175		
Phe	Cys	Glu	Ile	Leu	Ala	Val	Leu	Lys	Leu	Ala	Cys	Ala	Asp	Thr	His	
			180					185					190			
Ile	Asn	Glu	Asn	Met	Val	Leu	Ala	Gly	Ala	Ile	Ser	Gly	Leu	Val	Gly	
		195					200					205				
Pro	Leu	Ser	Thr	Ile	Val	Val	Ser	Tyr	Met	Cys	Ile	Leu	Cys	Ala	Ile	
	210					215					220					
Leu	Gln	Ile	Gln	Ser	Arg	Glu	Val	Gln	Arg	Lys	Ala	Phe	Arg	Thr	Cys	
225					230					235					240	
Phe	Ser	His	Leu	Cys	Val	Ile	Gly	Leu	Val	Tyr	Gly	Thr	Ala	Ile	Ile	
				245					250					255		
Met	Tyr	Val	Gly	Pro	Arg	Tyr	Gly	Asn	Pro	Lys	Glu	Gln	Lys	Lys	Tyr	
			260					265					270			

Leu Leu Leu Phe His Ser Leu Phe Asn Pro Met Leu Asn Pro Leu Ile
 275 280 285

Cys Ser Leu Arg Asn Ser Glu Val Lys Asn Thr Leu Lys Arg Val Leu
 290 295 300

Gly Val Glu Arg Ala Leu
 305 310

<210> 90

<211> 183

<212> PRT

<213> Homo sapiens

<400> 90

Arg Leu His Ala Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val
 1 5 10 15

Asp Ile Ala Tyr Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu
 20 25 30

Leu His Pro Ala Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr
 35 40 45

Phe Leu Phe Ser Thr Phe Ala Val Thr Glu Cys Leu Leu Leu Val Val
 50 55 60

Met Ser Tyr Asp Leu Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Leu
 65 70 75 80

Ala Ile Met Thr Trp Arg Val Cys Ile Thr Leu Ala Val Thr Ser Trp
 85 90 95

Thr Thr Gly Val Leu Leu Ser Leu Ile His Leu Val Leu Leu Leu Pro
 100 105 110

Leu Pro Phe Cys Arg Pro Gln Lys Ile Tyr His Phe Phe Cys Glu Ile
 115 120 125

Leu Ala Val Leu Lys Leu Ala Cys Ala Asp Thr His Ile Asn Glu Asn
 130 135 140

Met Val Leu Ala Gly Ala Ile Ser Gly Leu Val Gly Pro Leu Ser Thr
 145 150 155 160

Ile Val Val Ser Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln Ile Gln

	165	170	175
Ser Arg Glu Val Gln Arg Lys			
180			
<210> 91			
<211> 164			
<212> PRT			
<213> Homo sapiens			
<400> 91			
Ala Leu Gln Thr Thr Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala			
1 5 10 15			
Asp Leu Leu Val Ala Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu			
20 25 30			
Val Val Gly Glu Trp Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val			
35 40 45			
Thr Leu Asp Val Met Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala			
50 55 60			
Ile Ser Ile Asp Arg Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn			
65 70 75 80			
Thr Arg Tyr Ser Ser Lys Arg Arg Val Thr Val Met Ile Ala Ile Val			
85 90 95			
Trp Val Leu Ser Phe Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn			
100 105 110			
Asn Thr Asp Gln Asn Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val			
115 120 125			
Tyr Ser Ser Ile Val Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu			
130 135 140			
Val Tyr Ile Lys Ile Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg Val			
145 150 155 160			
Asn Thr Lys Arg			

<210> 92
 <211> 263

<212> PRT

<213> Homo sapiens

<400> 92

Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Ala Asp Ile Gly Phe Thr
1 5 10 15

Ser Thr Thr Val Pro Lys Met Ile Val Asp Met Gln Thr His Ser Arg
20 25 30

Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val Leu
35 40 45

Phe Ala Cys Met Asp Asp Met Leu Leu Ser Val Met Ala Tyr Asp Arg
50 55 60

Phe Val Ala Ile Cys His Pro Leu His Tyr Arg Ile Ile Met Asn Pro
65 70 75 80

Arg Leu Cys Gly Phe Leu Ile Leu Leu Ser Phe Phe Ile Ser Leu Leu
85 90 95

Asp Ser Gln Leu His Asn Leu Ile Met Leu Gln Leu Thr Cys Phe Lys
100 105 110

Asp Val Asp Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu His
115 120 125

Leu Arg Cys Ser Asp Thr Phe Ile Asn Glu Met Val Ile Tyr Phe Met
130 135 140

Gly Ala Ile Phe Gly Cys Leu Pro Ile Ser Gly Ile Leu Phe Ser Tyr
145 150 155 160

Tyr Lys Ile Val Ser Pro Ile Leu Arg Val Pro Thr Ser Asp Gly Lys
165 170 175

Tyr Lys Ala Phe Ser Thr Cys Gly Ser His Leu Ala Val Val Cys Leu
180 185 190

Phe Tyr Gly Thr Gly Leu Val Gly Tyr Leu Ser Ser Ala Val Leu Pro
195 200 205

Ser Pro Arg Lys Ser Met Val Ala Ser Val Met Tyr Thr Val Val Thr
210 215 220

Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile Gln
225 230 235 240

Ser Ala Leu Cys Arg Leu His Gly Arg Ile Ile Lys Ser His His Leu
245 250 255

His Pro Phe Cys Tyr Met Gly
260

<210> 93

<211> 173

<212> PRT

<213> Homo sapiens

<400> 93

Met Tyr Phe Phe Leu Ser Asn Leu Cys Trp Ala Asp Ile Gly Phe Thr
1 5 10 15

Leu Ala Thr Val Pro Lys Met Ile Val Asp Met Gly Ser His Ser Arg
20 25 30

Val Ile Ser Tyr Glu Gly Cys Leu Thr Gln Met Ser Phe Phe Val Leu
35 40 45

Phe Ala Cys Ile Glu Asp Met Leu Leu Thr Val Met Ala Tyr Asp Gln
50 55 60

Phe Val Ala Ile Cys His Pro Leu His Tyr Pro Val Ile Met Asn Pro
65 70 75 80

His Leu Cys Val Phe Leu Val Leu Val Ser Phe Phe Leu Ser Leu Leu
85 90 95

Asp Ser Gln Leu His Ser Trp Ile Val Leu Gln Phe Thr Phe Phe Lys
100 105 110

Asn Val Glu Ile Ser Asn Phe Phe Cys Asp Pro Ser Gln Leu Leu Asn
115 120 125

Leu Ala Cys Ser Asp Gly Ile Ile Asn Ser Ile Phe Ile Tyr Leu Asp
130 135 140

Ser Ile Leu Phe Ser Phe Leu Pro Ile Ser Gly Ile Leu Leu Ser Tyr
145 150 155 160

Tyr Lys Ile Val Pro Ser Ile Leu Arg Ile Ser Ser Ser
165 170

<210> 94
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 94
 Thr Asn Tyr Leu Ile Val Ser Leu Ala Val Ala Asp Leu Leu Val Ala
 1 5 10 15
 Thr Leu Val Met Pro Trp Val Val Tyr Leu Glu Val Val Gly Glu Trp
 20 25 30
 Lys Phe Ser Arg Ile His Cys Asp Ile Phe Val Thr Leu Asp Val Met
 35 40 45
 Met Cys Thr Ala Ser Ile Leu Asn Leu Cys Ala Ile Ser Ile Asp Arg
 50 55 60
 Tyr Thr Ala Val Ala Met Pro Met Leu Tyr Asn Thr Arg Tyr Ser Ser
 65 70 75 80
 Lys Arg Arg Val Thr Val Met Ile Ala Ile Val Trp Val Leu Ser Phe
 85 90 95
 Thr Ile Ser Cys Pro Met Leu Phe Gly Leu Asn Asn Thr Asp Gln Asn
 100 105 110
 Glu Cys Ile Ile Ala Asn Pro Ala Phe Val Val Tyr Ser Ser Ile Val
 115 120 125
 Ser Phe Tyr Val Pro Phe Ile Val Thr Leu Leu Val Tyr Ile Lys Ile
 130 135 140
 Tyr Ile Val Leu Arg Arg Arg Arg Lys Arg
 145 150

<210> 95
 <211> 320
 <212> PRT
 <213> Homo sapiens

<400> 95
 Met Leu Leu Cys Phe Arg Phe Gly Asn Gln Ser Met Lys Arg Glu Asn
 1 5 10 15
 Phe Thr Leu Ile Thr Asp Phe Val Phe Gln Gly Phe Ser Ser Phe His
 20 25 30

Glu	Gln	Gln	Ile	Thr	Leu	Phe	Gly	Val	Phe	Leu	Ala	Leu	Tyr	Ile	Leu	35	40	45
Thr	Leu	Ala	Gly	Asn	Ile	Ile	Ile	Val	Thr	Ile	Ile	Arg	Ile	Asp	Leu	50	55	60
His	Leu	His	Thr	Pro	Met	Tyr	Phe	Phe	Leu	Ser	Met	Leu	Ser	Thr	Ser	65	70	75 80
Glu	Thr	Val	Tyr	Thr	Leu	Val	Ile	Leu	Pro	Arg	Met	Leu	Ser	Ser	Leu	85	90	95
Val	Gly	Met	Ser	Gln	Pro	Met	Ser	Leu	Ala	Gly	Cys	Ala	Thr	Gln	Met	100	105	110
Phe	Phe	Phe	Val	Thr	Phe	Gly	Ile	Thr	Asn	Cys	Phe	Leu	Leu	Thr	Ala	115	120	125
Met	Gly	Tyr	Asp	Arg	Tyr	Val	Ala	Ile	Cys	Asn	Pro	Leu	Arg	Tyr	Met	130	135	140
Val	Ile	Met	Asn	Lys	Arg	Leu	Arg	Ile	Gln	Leu	Val	Leu	Gly	Ala	Cys	145	150	155 160
Ser	Ile	Gly	Leu	Ile	Val	Ala	Ile	Thr	Gln	Val	Thr	Ser	Val	Phe	Arg	165	170	175
Leu	Pro	Phe	Cys	Ala	Arg	Lys	Val	Pro	His	Phe	Phe	Cys	Asp	Ile	Arg	180	185	190
Pro	Val	Met	Lys	Leu	Ser	Cys	Ile	Asp	Thr	Thr	Val	Asn	Glu	Ile	Leu	195	200	205
Thr	Leu	Ile	Ile	Ser	Val	Leu	Val	Leu	Val	Val	Pro	Met	Gly	Leu	Val	210	215	220
Phe	Ile	Ser	Tyr	Val	Leu	Ile	Ile	Ser	Thr	Ile	Leu	Lys	Ile	Ala	Ser	225	230	235 240
Val	Glu	Gly	Arg	Lys	Lys	Ala	Phe	Ala	Thr	Cys	Ala	Ser	His	Leu	Thr	245	250	255
Val	Val	Ile	Val	His	Tyr	Ser	Cys	Ala	Ser	Ile	Ala	Tyr	Leu	Lys	Pro	260	265	270
Lys	Ser	Glu	Asn	Thr	Arg	Glu	His	Asp	Gln	Leu	Ile	Ser	Val	Thr	Tyr	275	280	285

Thr Val Ile Thr Pro Leu Leu Asn Pro Val Val Tyr Thr Leu Arg Asn
 290 295 300

Lys Glu Val Lys Asp Ala Leu Cys Arg Ala Val Gly Gly Lys Phe Ser
 305 310 315 320

<210> 96

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide
 primer

<400> 96

gtgccaccca gctgttcttt

20

<210> 97

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide
 primer

<400> 97

ttggctttgc ttgcaccaac tgcc

24

<210> 98

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide
 primer

<400> 98

cgatcatatc ccatcacagc aa

22

<210> 99
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:oligonucleotide
 primer

 <400> 99
 gacatggcac ctggtatcaa gt 22

 <210> 100
 <211> 26
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:oligonucleotide
 primer

 <400> 100
 cctgcactga cacccatgtg aaagag 26

 <210> 101
 <211> 22
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:oligonucleotide
 primer

 <400> 101
 ggatgctgag gctaaataaa gc 22

 <210> 102
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence:oligonucleotide

primer

<400> 102

ggtggcagtg acctacaca

19

<210> 103

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide
primer

<400> 103

tcctcttgtc tacagtctga ggaacaa

27

<210> 104

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:oligonucleotide
primer

<400> 104

ccaagaactc ttttcaatgc a

21